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YUNIBESITHI YA PRETORIA

A LANGUAGE & STORYTELLING CENTRE

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Denkleiers • Leading Minds • Dikgopolo tša Dihlalefi

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1 INTRODUCTION

"It is what is already here, the inferno where we live everyday, that we form by being together. There are two ways to escape suffering it. The first is easy for many: accept the inferno and become such a part of it that you can no longer see it. The second is risky and demands constant vigilance and apprehension: seek and learn to recognize who and what, in the midst of the inferno, are not inferno, then make them endure, give them space." [Calvino:1974:pg99]

This dissertation explores the creation of a space that highlights culture and heritage through the study, documentation and expression of oral language. The space is within an established urban environment, responsive to its vibrant physical, historical and social African context.

South African society is complex and unique. At this time in its history, many negative perceptions exist and many of its people are living in challenging environments which are difficult to escape from.

In view of this, Italo Calvino's advice to "Seek and learn to recognize who and what, in the midst of the inferno, are not inferno, then make them endure, give them space" [Calvino, 1974:pg99] seems particularly relevant.

There are many aspects of South African society that can be immediately nourished and celebrated. One such aspect is language communication, an essential ingredient in the understanding of our diverse cultures and the functioning of our society.

"Language is seen particularly as a social or cultural phenomenon: it is apart of society, it is partly shaped by society and in certain circumstances it also shapes society." [Kaschula, 1995:pg1]

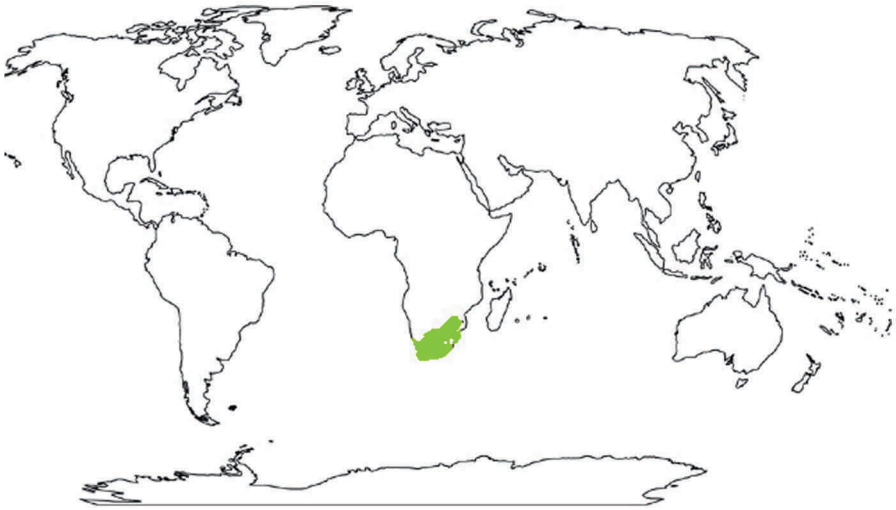
A parallel exists between space and language. They both grow and develop through a multiplicity of connections and relations. Designing a centre for the research, development and recording of language within the capital city, provides a way to create spaces through the interactions of people expressing, studying and recording language.

2 SETTING

City

The area studied for this dissertation is in the Northern Precinct of Pretoria, the CBD in the city of Tshwane in Gauteng, South Africa.

A city is a point where an event in history occurred that attracted a group of people to it. The city of Pretoria developed from a meeting place for communion and a central market, to a town that has developed and grown into an important city in South Africa. The many variables within the city continue to attract more layers of variables and connections which encourage growth and attract greater numbers of people because they find what they need or desire, or think they'll find what they need or desire. The perception of the city becomes such that it fuels its own growth. It is important to note that it is not the built form that forms the city, it is the needs, aspirations, ideas and connections of the citizens that form the city and the buildings are a result of providing for those connections and needs.



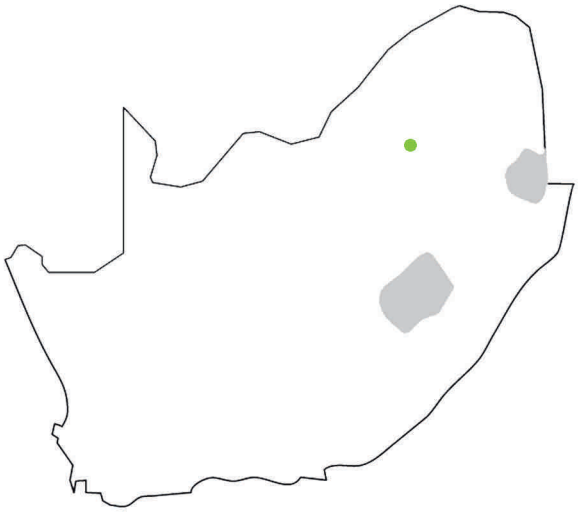


Fig.1 Study area location in global context

UNINHABITED NATURAL LANDSCAPE

The area where the city of Pretoria stands was once a peaceful valley between two mountainous strips bisected by a river. The valley had a favourable climate. It may have been visited at different times by migrant pastoralists.

RURAL SETLLEMENT

There is evidence of indigenous settlers in the area. Urban settlements of between 12–20 000 existed up until 1800 in the central high–veld region and were mostly established along easily minable ore bodies. Iron, copper and gold was mined and traded through central and east African trade routes thousands of kilometres away [Lloyd,2003]. During the Difiqane, the rebel Zulu general Mzilikazi moved into the area with his tribe and stayed until a regiment of zulu leaders caused them to flee north. Mzilikazi's murderous spree in the area left it depopulated when he moved north. [Frescura,1998]

FARMING & CENTRAL RITUAL GATHERING

In the mid 1800's a group of displaced foreigners discovered the beauty of the valley and fell in love with its Europeanly classical landscape of "mountains, valleys, fountains, rivers and 'poorte'." [Jordaan,1989:pg27]. They selected this place as their central meeting place to observe 'nagmaal' or Holy Communion. The settlement of the people as farmers in this area marked the end of their "Great Trek"
A central church on Church Square (then Market square) was built in 1854.

TOWNSHIP DEVELOPMENT

Pretoria was proclaimed a town on 16 November 1855. The two main roads structuring the town were Church Street and Markt Street (today Paul Kruger Street) which still structure the city of Pretoria. Together they form the east–west and north–south axes of the city. [Andrews & Ploeger,1989:pg5] The Town of Pretoria emerged along typically European urban patterns of two main streets perpendicular to each other and intersecting at a central point, copying the urban grid established in Graaf–Reinette [Jordaan,1989]
Markt Street (Market Street) was renamed during the Voortrekker celebrations in 1938 to commemorate Stephanus Johannes Paulus Kruger.

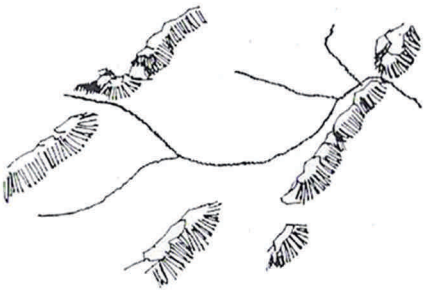


Fig.2 Uninhabited natural landscape

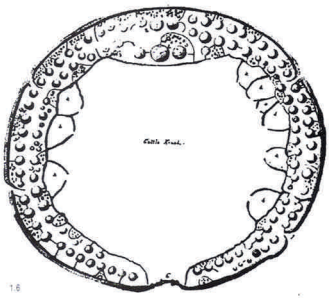
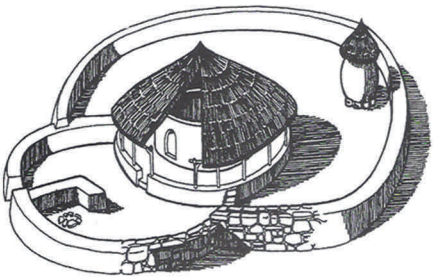


Fig. 3 Cattle kraal & domed huts



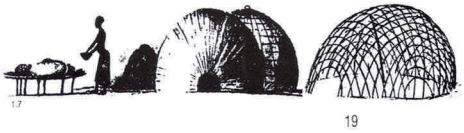


Fig. 4 Bilobial hut

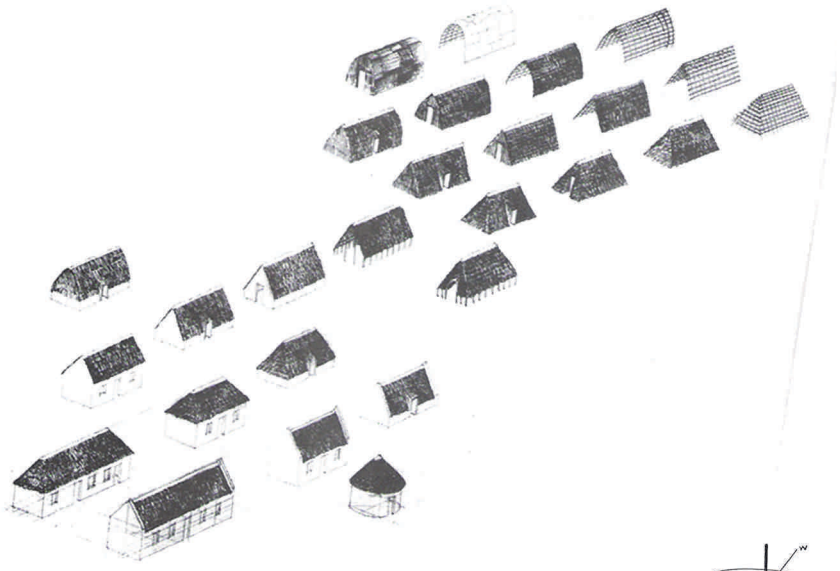
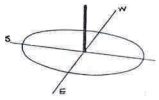


Fig. 5 Development of Boer Vernacular dwelling



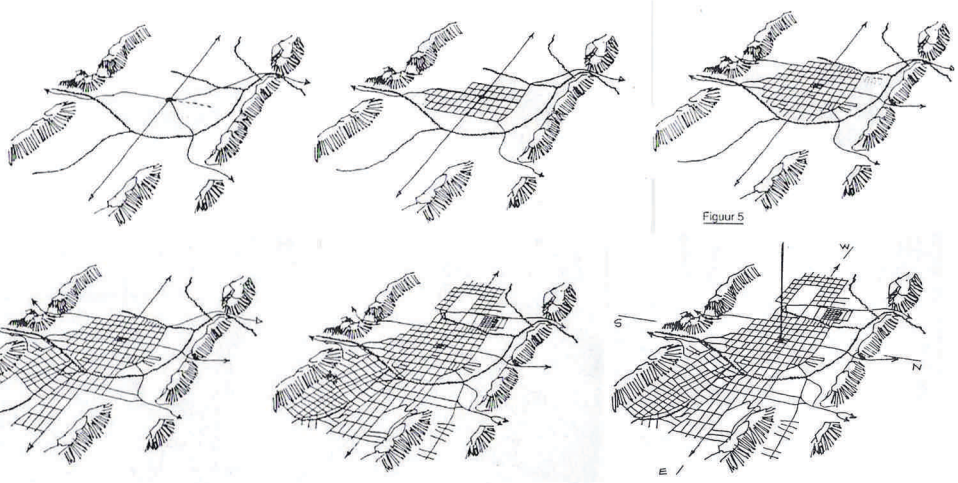


Fig. 6 Early Urban development

VISIONARY CITY GROWTH

In the 1930s, the town planner Sir William Holford was employed to structure and plan the growing capital city. He produced several proposals over an extended period of time for the intersection of Struben and Paul Kruger Street. It is from this intersection that one has the impressive view towards Church Square as well as towards the Union Buildings, built in 1909 by Sir Herbert Baker. The intention of his proposal was for government departments to be located along this east–west axis, physically emphasising the existing visual link. The north–south axis focused on the original church built on Church Square. The intersection was intended as a large public space or park [Barbir, 2007]. The proposals were never realised and the intersection remains undefined.

FRAGMENTATION OF CITY

According to David Panagos, who grew up living in one of the apartments on the second floor of the Panagos Building, the area used to be a vibrant one with a fine urban grain. Several boarding houses and hotels existed in the area where temporary workers from the outlying area lived for the duration of employment in the city. The area had a high residential percentage. Struben Street was lined with small residential houses. Today only the Jansen House remains. Mr Panagos remembers the bakery diagonally across the street from his home as well as spending most of his afternoons playing in the Zoo with his younger brother. [Wilson, 2007]

A tram system used to operate in Pretoria, south of Church Square. On the northern section of Paul Kruger streets only buses operated. During World War II the zoning of this residential area was changed to accommodate light industrial activities. Several cottages north of the Panagos Building were converted to manufacture helmets. Mr Panagos identified this change to be the start of the degeneration of the area. [Wilson, 2007]

The 1967 scheme for a highway development led to the demolition of the northern area of the CBD. It was stopped before the highways were built but no plan was put into place to recover and redevelop this area. As a result it developed into a harsh light industrial, commercial area. It has been left to grow undefined and without direction, furthering the degeneration of the area.

NEW USERS AND PARADIGMS

In 1997 the post–apartheid cabinet decided that the headquarters of national government departments should stay in the inner city and not follow the trend of development to the eastern suburbs. This would prevent deterioration and promote inner city urban renewal. The Re Kgabisa Tshwane framework was developed with the main purpose of establishing a long term solution to improve the physical working environment for national government department head offices and agencies in Pretoria's CBD.

NEW VISION

The new framework proposes open spaces and infrastructure around the new buildings to improve the publicly accessible spaces in line with the Batho Pele principles of people first. Facilities such as auditoriums, archives and communication solutions will be shared by the different departments. The framework divided the CBD into a number of precincts and defined overall strategic concepts as shown in Fig.10

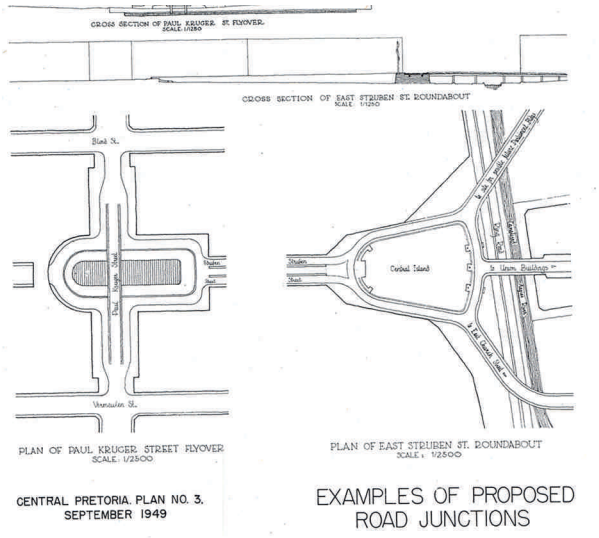


Fig. 7 Intersection of Struben & Paul Kruger street. 1949

Fig. 8 Highway development scheme.1967

Re Kgabisa Tshwane

Tshwane Inner City
A better place to work

Fig. 9 Re Kgabisa Tshwane logo

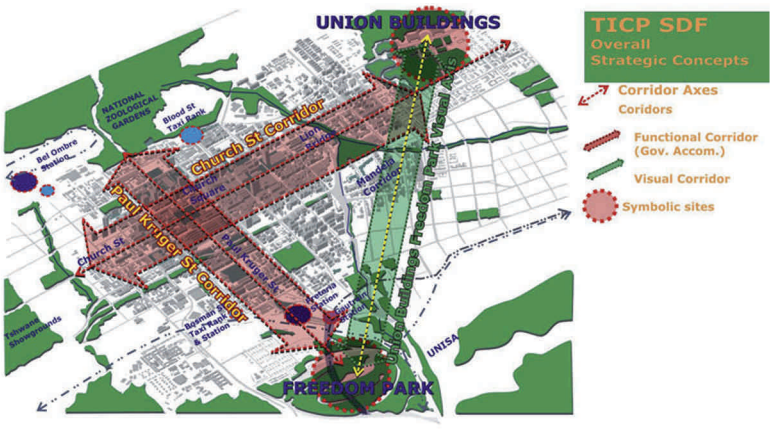


Fig. 10 Re Kgabisa overall strategic concepts

The area focused on for this dissertation is around the intersection of Paul Kruger St and Struben St. This intersection is the only place where visual axes from both the Union Buildings and Church Square meet and highlights the opportunity for a potential new public building. It falls into the Paul Kruger North Precinct as defined by Re Kgabisa Tshwane.

The projects proposed by Re Kgabisa Tshwane in the Precinct relevant to this dissertation include the New National Library, the Department of Education, Synagogue Square and the upgrade of Struben St. In the proposal the area around the synagogue is to be made a large open public space. Paul Kruger street is to be semi-pedestrianized by placing an island in the middle of the street lined with banners.
(http://www.rekgabisatshwane.gov.za/content/content_about.html)

The New National Library was completed and opened in September 2008. The Department of Education is currently under construction. The area around the synagogue is still undeveloped but if all goes according to Re Kgabisa's plans it will soon be a sterile "iconic" object in the middle of a vast themed urban park. This solution poorly utilizes the potential for public activity that can be promoted along the prominent axes as well as the informal, unprogrammed fine grain uses that can emerge from these edges. The synagogue's facade is the prominent feature of the building and this would be better emphasised by defining the facade line of the street through other buildings as proposed in Fig. 19, that would also provide an edge to encourage public activity and fine grain uses.

Another important development contributing to the regeneration of Pretoria is Freedom Park established by the Freedom Park Trust with Nelson Mandela as its patron-in-chief. The intended purpose of Freedom Park is tell South Africa's story from pre-colonial to colonial, apartheid and post-apartheid times, in the hope that an overall understanding of its true history will help dispell myths and prejudices and reveal its rich cultural heritage. By acknowledging the past it is hoped that "Freedom Park will celebrate the achievement of democracy and stand as a beacon of hope for the future." [Young, 2004:1]. Freedom Park forms the southern most point of the Paul Kruger Street axis (see Figures 10 and 21)

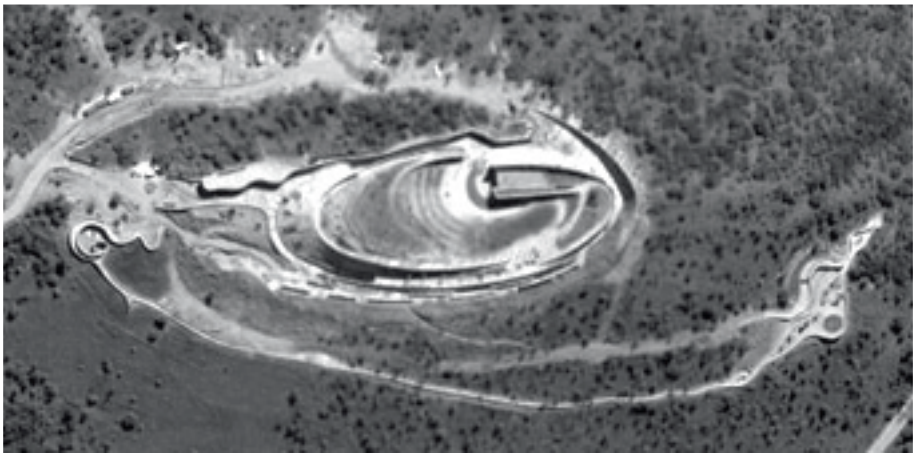


Fig. 11 Aerial photo of Freedom Park

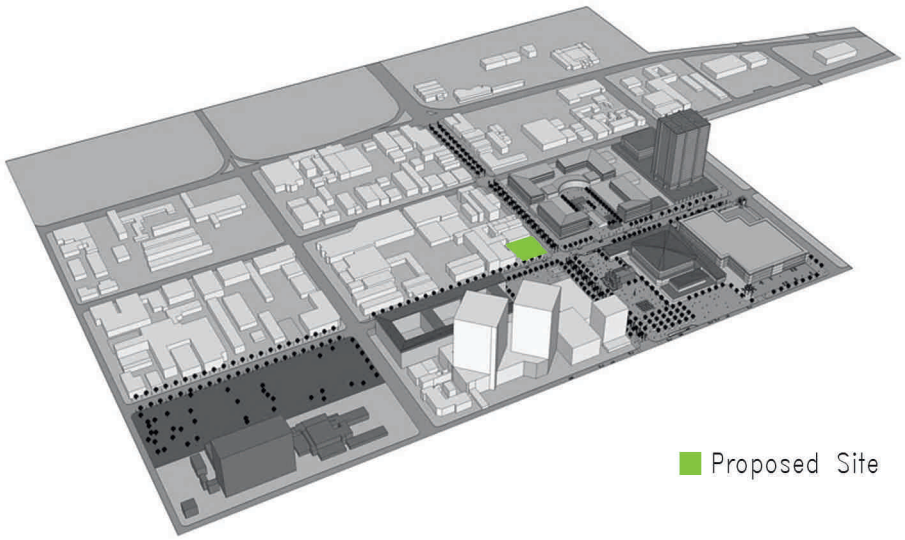


Fig. 12 Proposed site within context of Re Kgabisa proposal

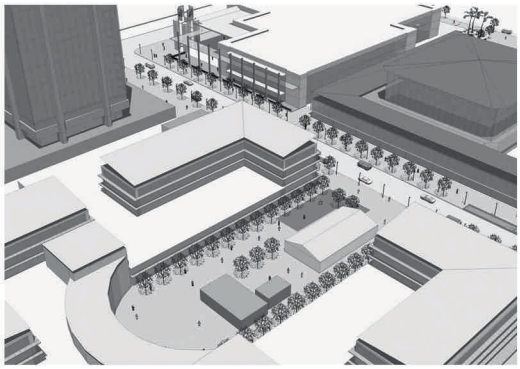


Fig. 13 Artistic impression of new Education Department

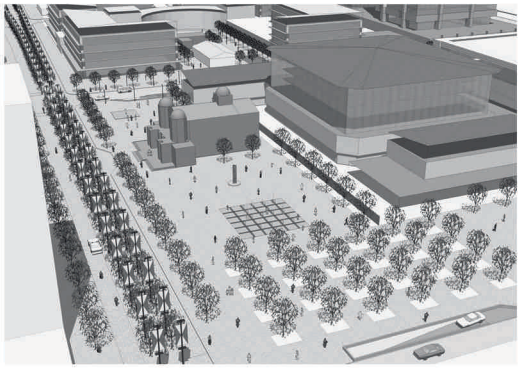


Fig. 14 Artistic impression of Synagogue Square proposal

Fig. 15 Artistic impression of proposal for Struben street upgrade

Fig. 16 Pedestrianised area

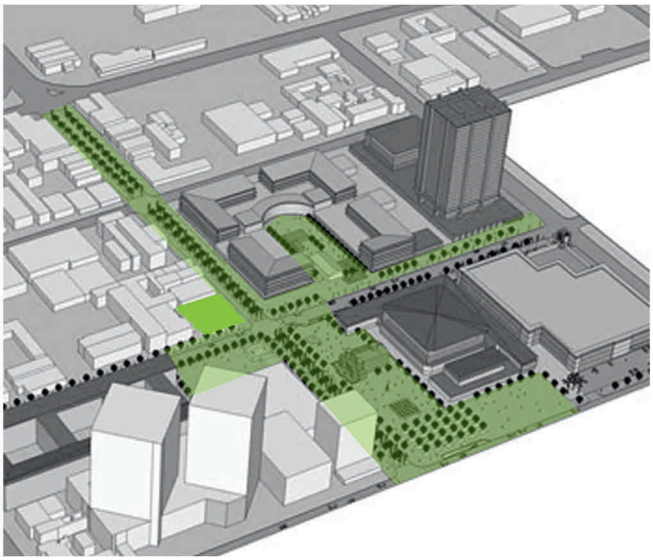


Fig. 17 Underground parking

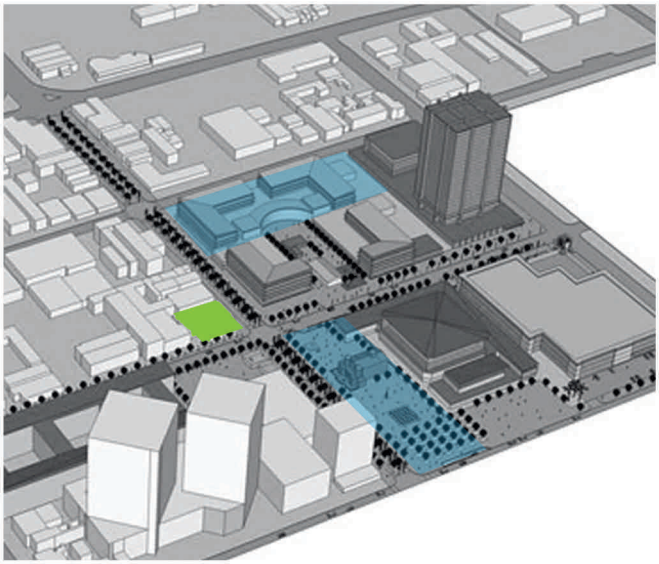
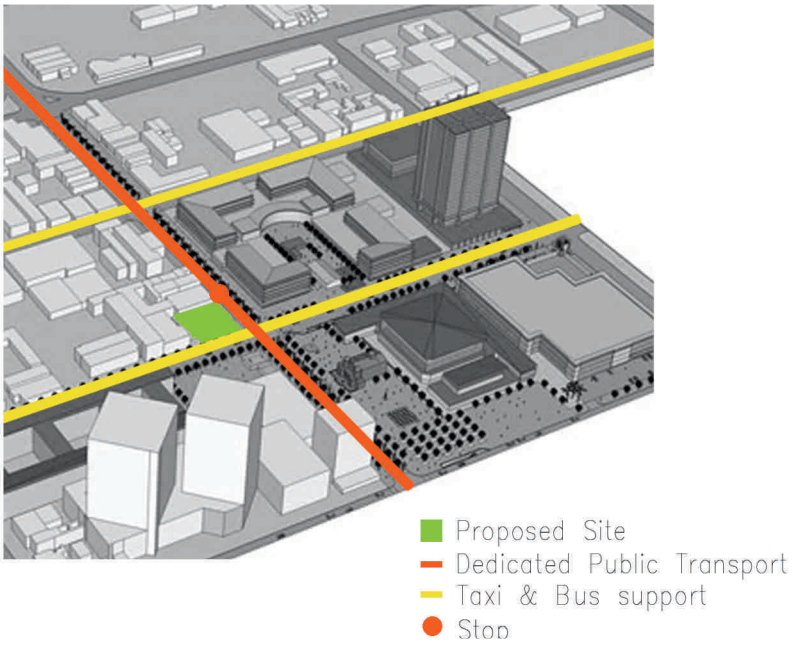


Fig. 18 Transport



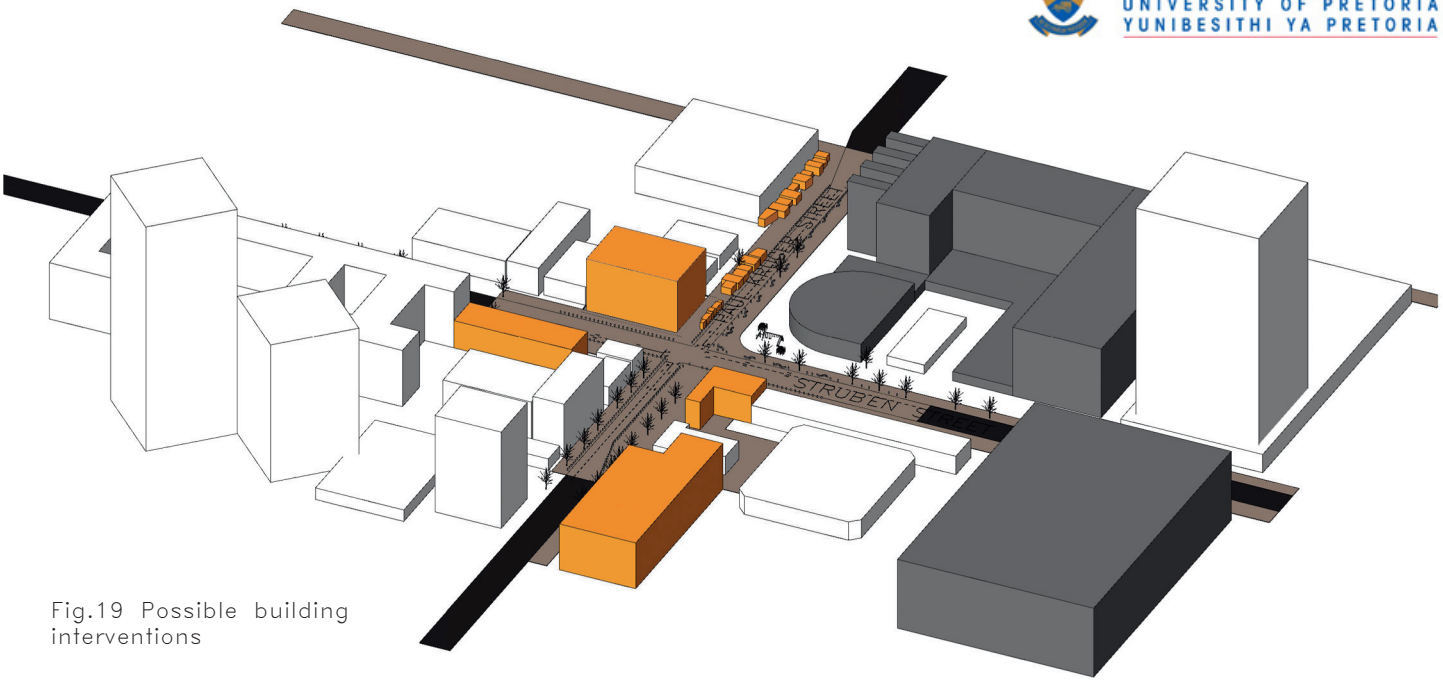


Fig.19 Possible building interventions

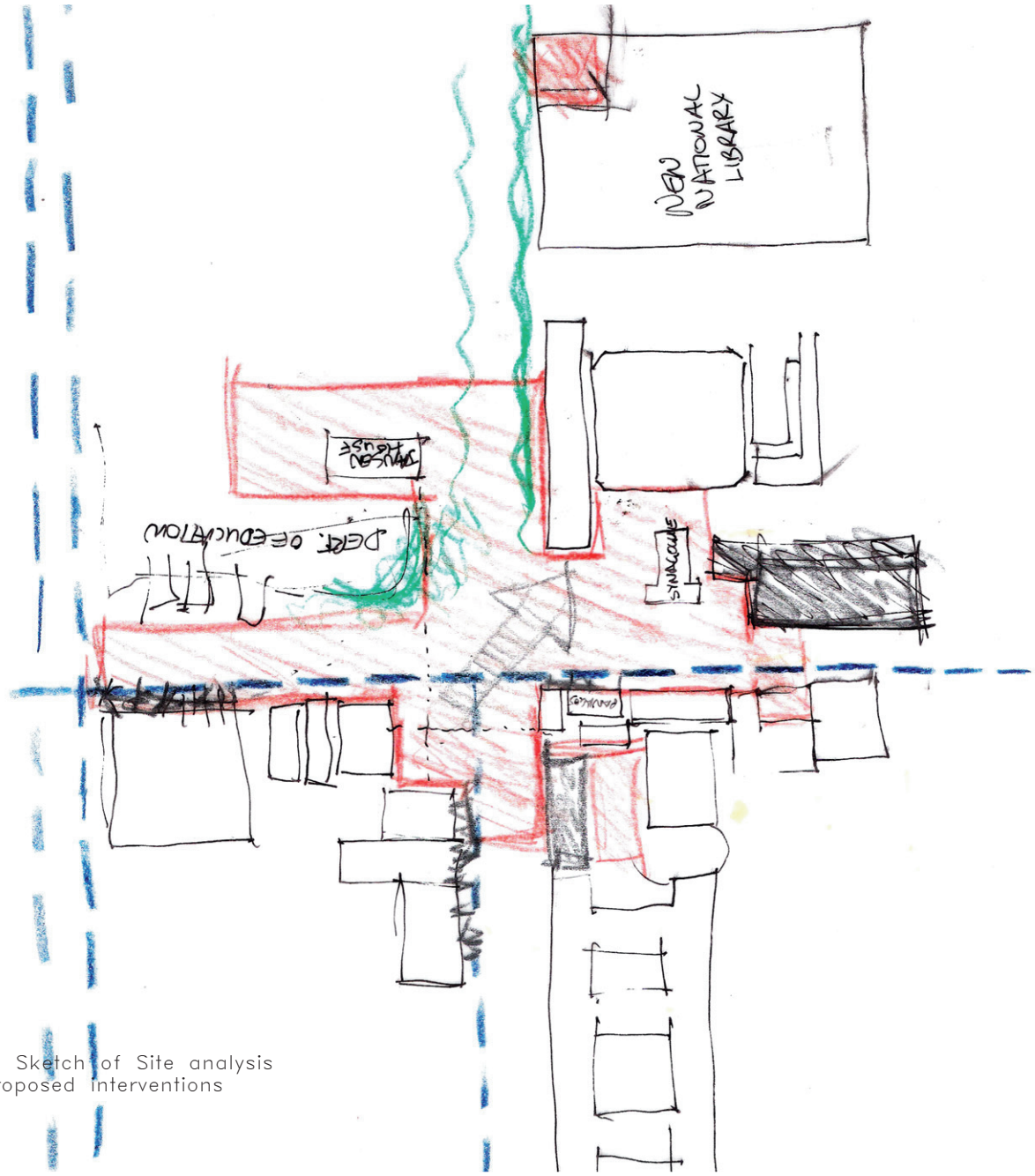


Fig. 20 Sketch of Site analysis with proposed interventions

The SITE and its potential as a place for "talking"/communicating

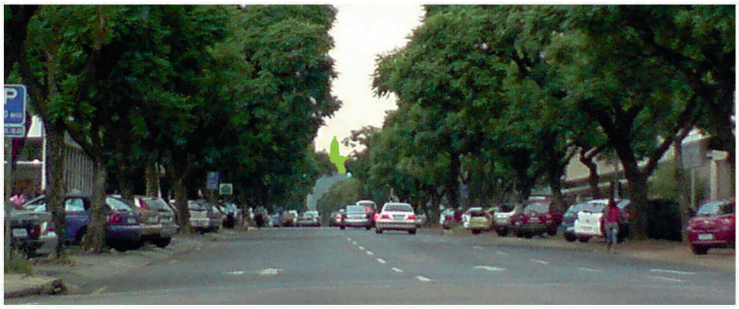
The site chosen for the proposed facility is situated on the North West corner of Paul Kruger and Struben st. It is currently a non-place. A "space destined to be passed through rather than inhabited"[Morteo,2006:56]. According to Morteo non-places represent the anonymous and globalized way in which we live. He speaks about giving sense back to the "vacuum of these spaces of passage" instead of masking them with superficial un-thought-through decoration.

The main cause he attributes to the creation of the vacuum is our modern technology and methods of communication [Morteo, 2006]. The way we talk and communicate has lost its depth and meaning. There is no beautiful richness in e-mail. The human connection is what creates meaning in communication. This needs to be encouraged and given space. As a society we need to re-learn to communicate. Understanding how we have communicated through history and the relationship between methods of communication and culture will help us to fill the vacuum.

The anonymity of the site is a condition of the city as a whole where physical space is dominant over social space [Da Costa, 2007]. Many opportunities exist in the area around the intersection of Paul Kruger and Struben Street. The place is significant in that it has visual axes to both the Union Buildings and Church Square. The axis along Paul Kruger Street is further accentuated symbolically because of the alignment with Freedom Park.

The many important historical references give the place meaning to a diverse range of South Africans. A history of the country can be felt when standing at the intersection: the timeline described above can be followed through. Examining the mountains to the north, one can imagine how the valley would have looked in its natural state. Church square was the starting point to the development of the town and then city. The Union Buildings are a reminder of the people finding and claiming their independence in the early twentieth century. The old synagogue is reminiscent of how the newly independent people stamped their authority by discriminating against certain groups of the population. Remembering the trial and imprisonment of Nelson Mandela leads onto thoughts of the journey the marginalised groups went on to claim their equal status. The new buildings and government interventions are indicators of a new start and its vision for the future. All this can be acknowledged and recognised from one point in the city, yet it remains uncelebrated. So many stories and histories meet and converge in this place but the daily commuter is not given any indications of this. If they stopped to pause there for a moment, they might see the Union Buildings or notice the Synagogue. They may look at the Panagos building as more than just a corner shop and wonder how people lived when it was first built. And with some encouragement, they may start to tell stories about their past experiences or discuss their hopes for the future.

It is therefore an ideal setting to establish a place of human connection and meaningful communication.



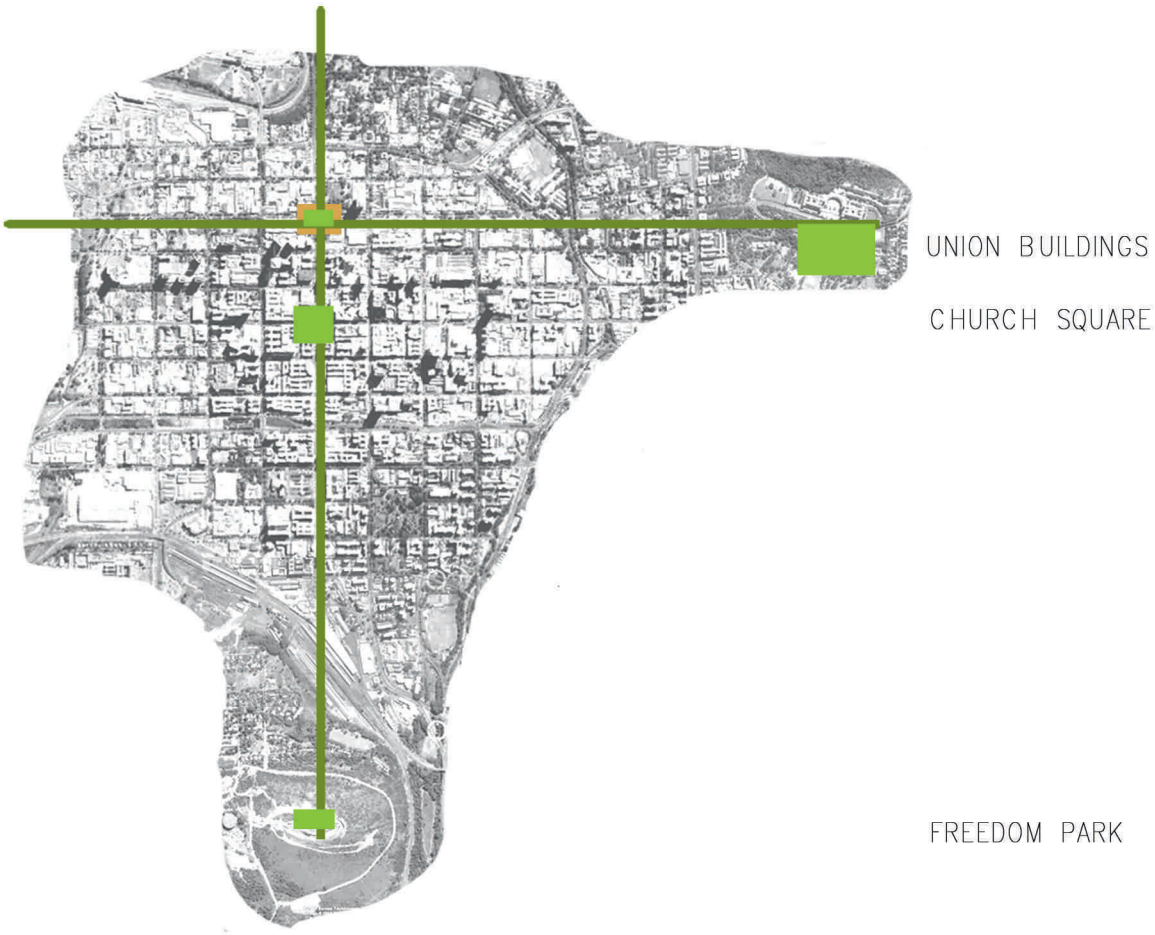


Fig.21 Visual historical clues

Fig. 22 Panorama of view from site

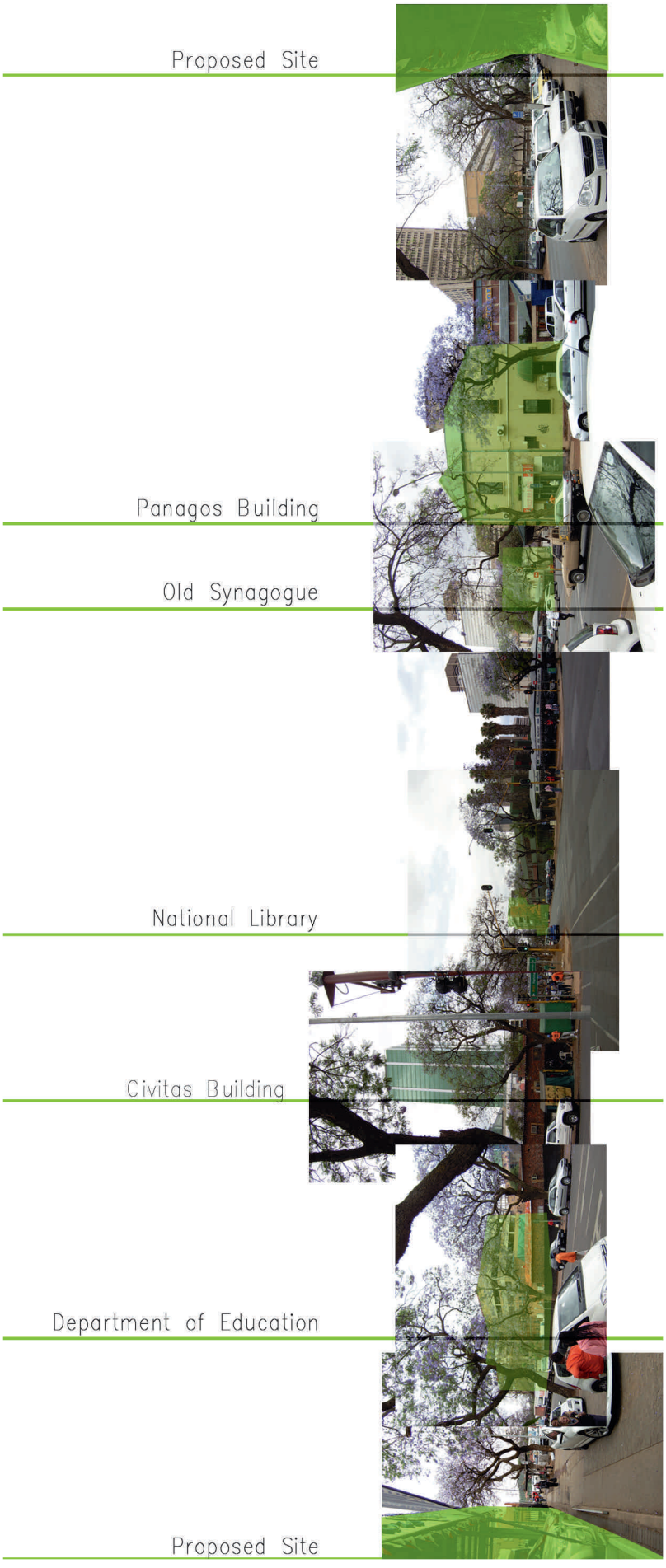


Fig. 23 South elevation of proposed site

Fig. 24 West elevation of proposed site

ANALYSIS OF STUDY AREA

Fig. 25 Proposed site

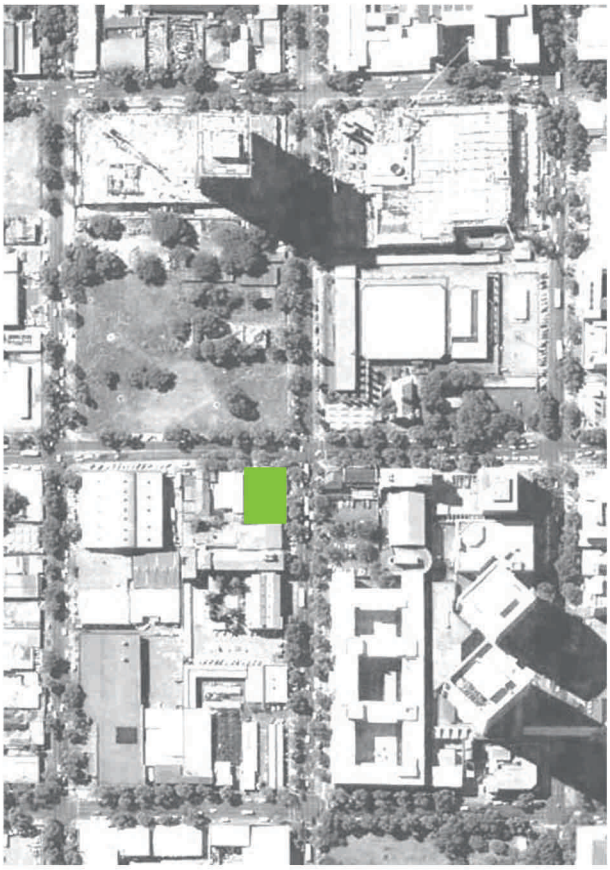
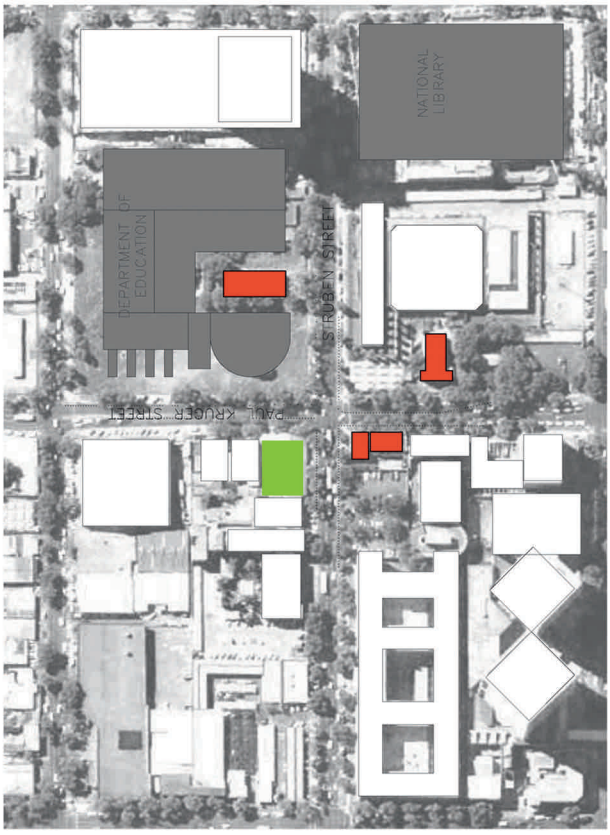


Fig. 26 Heritage buildings



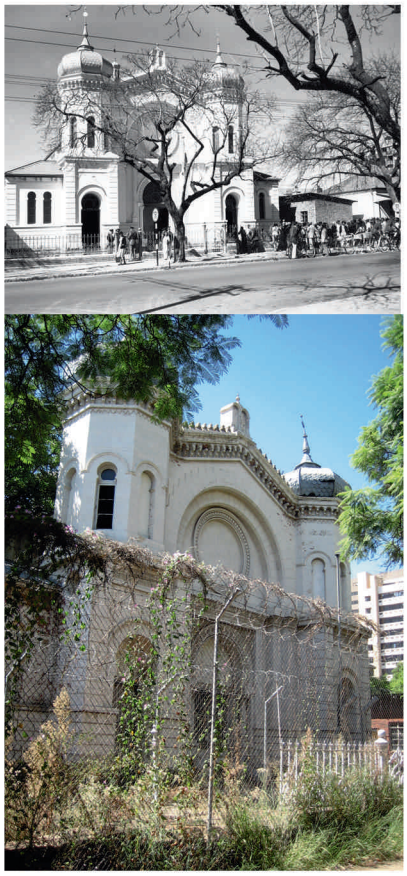


Fig. 27 Old Jewish Synagogue

Fig. 28 Panagos Building

Fig. 29 Jansen House

The significant heritage buildings in the vicinity of the proposed site are the Old Jewish Synagogue, Jansen House and the Panagos building.

In 1952 the property of the Jewish community including their Synagogue was expropriated by the national government and the Synagogue was converted into a special supreme court. This court was to deal with the rising 'black opposition movements' The building was painted white and all stain–glass windows were removed. On 3 August 1959 the Treason Trials, of which the preparatory examination had begun in 1956 at the Drill Hall in Johannesburg commenced at the converted Synagogue in Pretoria. This strategic move on the government's part was to deter supporters of the accused. It was here that on 12 June 1964 Nelson Mandela and his seven co–accused were sentenced to life imprisonment. (Mandela 1994:231–446)

In 1977 the inquest into Steve Biko's death, the leader of the Black Consciousness Movement began at the Old Synagogue. (Remmers & Schütte 2005)

The historical events that took place in the synagogue have given it significant heritage value to South Africans. These events shaped the way history unfolded.

Directly opposite the Synagogue lies the Panagos Building (architect,1897) which is the oldest remaining commercial building in Pretoria. (Le Roux, 1991)

The Jansen house on Struben street is the only remaining built evidence of the residential component that was originally in the area. It is being restored as part of the new Department of Education building.

Fig. 30 Open spaces

Fig. 31 Active edges

Fine grain commercial activity

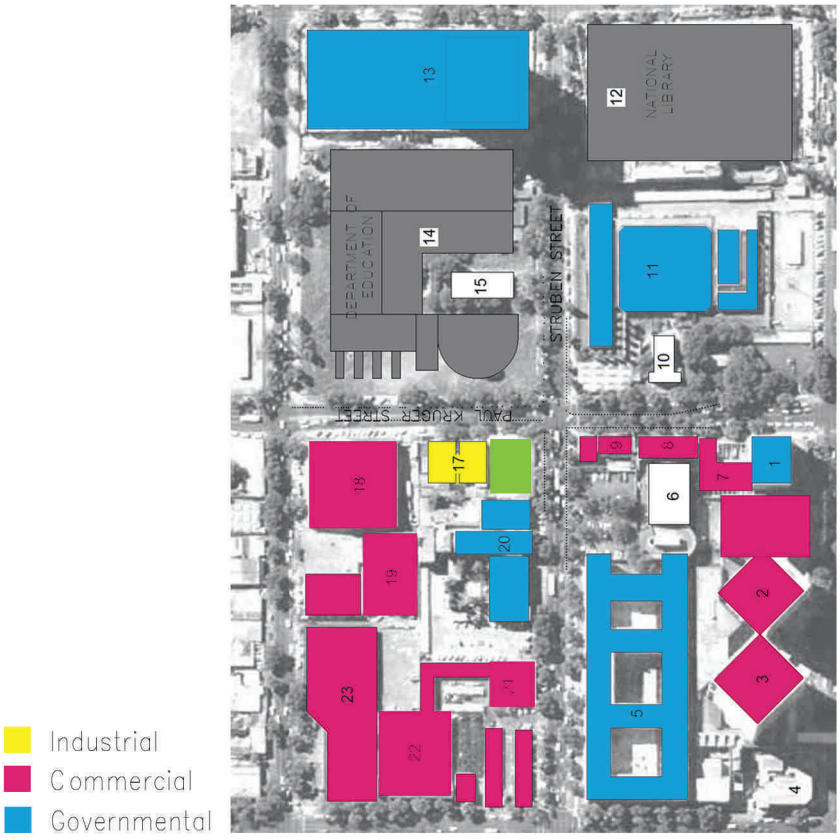


Fig. 32 Current usage

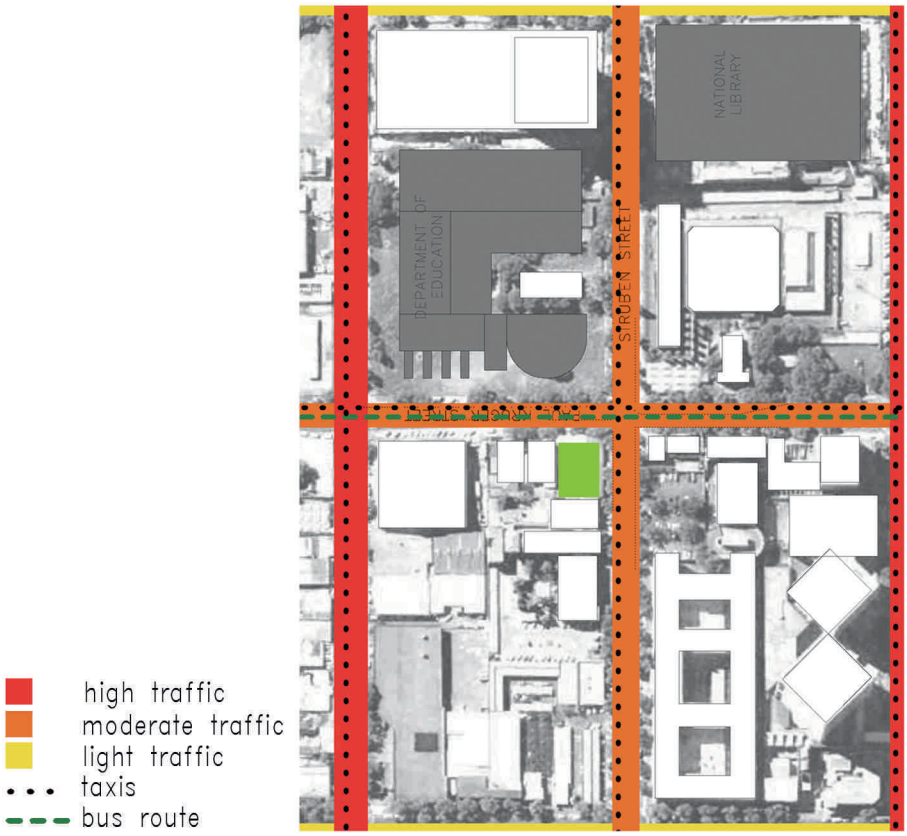
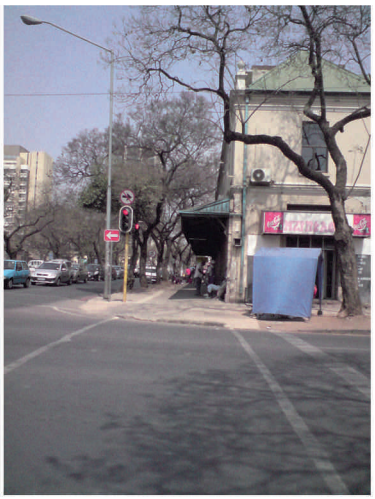


Fig. 33 Current traffic conditions

Fig. 34 Street condition around site



3 CHARACTERS

CLIENTS

The Department of Arts and Culture has undertaken a variety of national language services projects. Their vision is "to promote multilingualism by ensuring that all eleven official languages enjoy equitable treatment, development and protection".

Part of their mission is to develop and implement Human Language Technologies (HLT). (www.dac.gov.za/projects/language_service). The African advanced institute for information and communication technology known as the Meraka Institute is a collaborator in the development of HLT. According to them HLT "can play a crucial role in addressing the need for information empowerment" as well as supporting language diversity and contributing to solving "historical discrimination against specific languages" (www.meraka.org.za/humanlanguage). As part of the research required to develop this technology, the many languages and dialects used in South Africa need to be recorded. A facility is required to perform these functions.

The necessity to record language in an audible format opens up many other areas of opportunity. Oral traditions and vernacular knowledge can be documented and archived simultaneously. These can be used for researching, recording and demonstrating many cultural aspects of Southern African people. This will attract tourists as well as teach locals about their heritage and social values that traditionally are passed down through the generations and should not be lost.

Internationally, Language conferences are held biannually around the world where language development is discussed. Some of the questions asked at the conference recently held in South Africa were:
– "What role does language play in development?"
– "What role can language play in addressing urgent global demands?"
– "How do we reconcile language development, the hegemony of English, the formation of national identities, demands for democratization and liberalization, and the recognition of individual and cultural rights in a global context?"
– "How can language practitioners, educationalists, development specialists and the like, from across the world, collaborate to make a tangible difference to increasing access to knowledge through the development of language?"
(http://www.langdevconferences.org)

The proposed facility will provide a space where these questions can be addressed on an on going basis.

USER PROFILE

The following anonymous poem is reproduced in the introduction to the published papers given at the fourth International Conference on Oral Tradition at the university of Natal in Durban.

"We do meet in this Durban often.
Oh! What will be the result?
Men have flayed the beast and cut it open;
However the cutlet, Nongena, has not come our way yet,
The prize portion, ntsonyama, has not been delivered to us.
Who is it will consume it, and when?
For you flay the ox and cut it up into pieces;
Eventually you leave it behind in the Durban.
Frustrated indeed is Black Africa.
You discuss custom and hold forth on language.
Who does benefit from your deliberations?
For this race is at a loss.
Having dissected and unpacked folktales, who does benefit?
You analysed and interpreted the traditions;
Who will then enjoy the fruits thereof?
Be it so, I'm not complaining!
Keep up the good work, fellows,
And you too, spirited ladies.
Go on exercising your critical faculties –
For your minds, full of knowledge, are primed already:
They distinguish between the stars and the moon;
Reflecting the dazzling light and heat of the sun;
But then the light shed turns to shine on you
While Africa lies straddles in the shade.
She needs to be retrieved, fellows.
Hold hands together gingerly
And stand together firmly,
Bringing black and white together,
Set to apportion the rights equitably.

I disappear !!

The author addresses the academics who study language and custom, showing appreciation for their work but reminding them that Africa "lies straddle[d] in the shade" and "needs to be retrieved". In other words, all their academic knowledge about African oral traditions is of no use if it does not benefit the African. [Sienart, 1994:pgx]

The proposed building needs to facilitate the mixing of these two worlds and accommodate both the researchers and the public as well as be a threshold between the two. Therefore a wide range of users need to be accommodated. The public areas of the building would attract informal traders; or a citizen walking past, needing a place to eat during their lunch break; or a tourist coming to see an exhibition or planned event. The upper levels of the building would be used by students and scholars, as well as researchers and academics.

4 DIALOGUE/PROBLEM

AFRICAN VS EUROPEAN SPACE

Two cultural perceptions of space influence cities in post-colonial Africa. To the European colonists, space was a commodity to claim ownership over whereas the indigenous Africans perceived space as infinite, belonging to no-one [Makin:2006]. The colonists imposed their spatial ideals in the cities they built wherever they dominated, resulting (in post-colonial times) with cities defined by one way of spatial perception but used by citizens with a different spatial sensibility.

The European approach to space was that it needed to be demarcated and privately owned. Even public space would be defined in the same way as privately owned space except that the owner is "the public". These spaces have clear boundaries and rules (e.g "no walking on the grass"). They are the only places where loitering would be allowed. In South Africa, the town planning and zoning laws that were established by the European settlers are still in use today.

The African conception of space is that all space is public except that which through ritual becomes private [Lloyd:2003]. To the indigenous African the earth doesn't belong to anybody. Materiality, space and time are all inseparable constructs and therefore not own-able. There is no notion of compartmentalising space even though it occurs between things it is all part of one indivisible continuum. Time is also indivisible. All those that have lived, do live and will live and are always present. Birth and death are mere events or the changing of phases like water turning into ice or vapour. Both space and time are infinite. The practical implications of this is that parts can't be separated out or owned or disposed of [Makin:2006].

The dichotomy in urban sensitivities was exaggerated when early colonial settlers excluded African people from colonial developed towns and imposed written laws and land titles on them. These two concepts were completely foreign to African oral history. The colonials tried to re-create what they knew by transforming the "indigenous land to replicate a quasi-metropolitan culture in every physical respect" [Lloyd:2003:pg107]. They did this by imposing formal structure on the land, bringing in foreign trees and dividing the land up into own-able portions sold off cheaply to the new settlers.

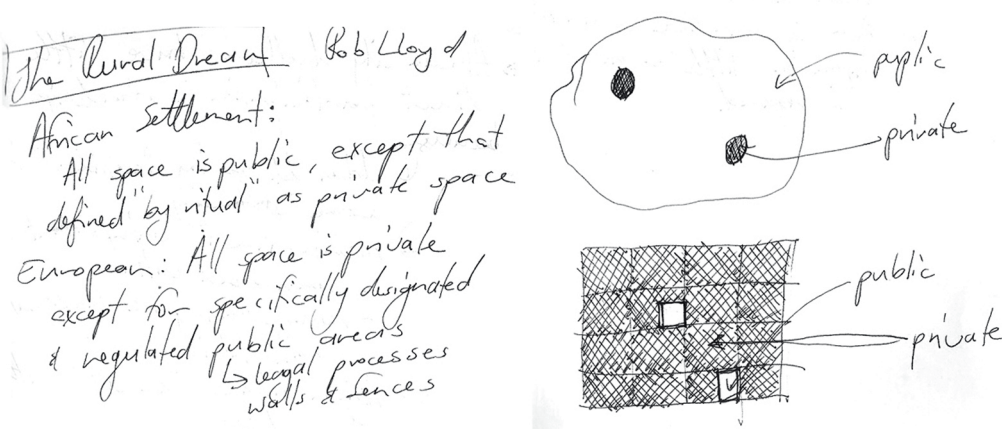


Fig. 35 Diagrammatic interpretation of African and European space

These conflicting world views are evident today on most street corners where a hawker (usually an African) occupies a space with his goods for sale. Regularly he is forcefully removed from the spot because it is designated as pavement and not as a trading area. The hawker has a sense of belonging to all space but the city laws are still reflective of the European concept of space even though the needs of the city user have changed. Pretoria displays many examples of these conflicting views. As a result, spontaneity and dynamism are lost and the city is full of homogeneous spaces where functionality and commerce are given priority over social relations. [Da Costa:2007]

African city dwellers tend to have very little participation in the urban design process. From Lloyd's observations he suggests a number of reasons for this. Firstly urban delivery by "outsiders" has become customary and the African culture tends to accept rather than to question. Their human based culture renders architecture as unimportant on any other level other than a functional one. The final principle he suggests for the lack of active involvement comes from looking at african art which is reductive and functional in nature and little or no development is required.[Lloyd:2003]

Although there is little formal involvement in the overall design decisions, the African citizens contribute greatly to the urban experience through informal interventions. They are responsible for the spontaneous, dynamic moments that do occur within the fragmented city. The informal traders give citizens choice and opportunity for social experience and connections in-between highly secured, controlled buildings. In his essay Inconsistent Vernaculars, Alberto Ferlanga describes the "infrastructural, residual and occasional constructions" that exist temporarily as part of the building process. They disappear as the self contained buildings are finished, only to reappear at the next construction site, becoming, in an ever changing built environment, the only consistent elements. "Often their duration is limited in time and their appearance is mutable, but it is precisely the obvious way in which they vary with the variation of the conditions that surround them that allows them to preserve a temporal dimension which seems to have totally disappeared from the majority of contemporary buildings, interested instead in endlessly prolonging an impression of newness and corruptibility."[Ferlanga, 2006: pg137]. This description can appropriately be used to describe the informal elements present in the South African city. Hawkers and informal structures are a 'permanent' and consistent feature of the urban landscape. Their connections with their location are closer than what the buildings (that 'belong there') can achieve.

Fig. 36 Informal trade

Walking through Pretoria a sense of division is felt; of inside and outside, the included and the excluded. People moving from destination to destination fill the streets and pavements with activity, but lingering or dwindling or pausing is not encouraged. The buildings are highly secured excluded, untouchable spaces. By observing the movement patterns over a twenty-four hour period, it is obvious that people only come to the city during office hours, in other words for purely functional or commercial activities. Very little social activity, for its own sake, takes place. [Da Costa:2007]

The post-colonial African city is an interesting situation full of opportunities. It is made up of many layers of meaning to many different groups of people who have either participated or been involved over a long period of time. The past cannot be ignored. New democratic processes of design need to be established, layering and improving on what exists without ignoring it or trying to superimpose idealistic styles in the hope that something new and different will heal the current discord. "Misunderstandings of the development of today's metropolis lead to a contemporary reinterpretation of the historical city that almost always brings out nothing but its frozen scenery and not the structures of its transformation."[Aymonino:2006:pg19]

UNVOLUMETRIC SPACE

The humanist philosophy of Ubuntu, a fundamental aspect of African society places people at its centre. It is a non-individualistic, communal and inclusive approach to life, best explained with the Xhosa aphorism Umunthu ngumunthu ngaBanthu: "I am a person by reason of other people" [Lloyd, 2003:113]. Spatial strategies emphasising efficiency and and individual ownership are therefore not the best solution in the South African context. "Diverse identities should rather be celebrated and acknowledged through open ended, activity driven solutions supporting the concepts of inclusivity and community." [Van Rensburg, 2008]. Non-prescriptive spaces need to be developed, where differences can be negotiated and the unpredictable can be accommodated. The human dimension is the critical factor [N'Da N'Guessan & Bachir, 2000]. Spaces can then be truly democratic where all actions are community orientated instead of individualistic.

The creation of such spaces happens through many processes from social interactions and cultural ideals. Prior to the 1950's, architecture was taught in terms of mass and volume. After that a paradigm shift occurred and architecture became about space. Many recent projects have gone one step further, suggesting "architecture can exist without volume" [Scott Brown, 2006:p9]. The idea of an un-volumetric architecture is worth exploring in the African context where a space can be defined by a central fire or a circle of white painted stones. Un-volumetric architecture is generated from contextual processes "almost always trying to be systematic, rather than to produce objects of mere design" [Aymonino, 2006:pg21]. The focus is not on volumes although they may occur as a by product. Continuity is prioritized over permanence so the volume reflects the many flows of the context. "The responses that Un-vol gives to its modes of use of its objects are never univocal or prescriptive." [Aymonino, 2006:pg23] This allows architecture to fulfil its role as a social service.

Un-volumetric architecture suggests a "creative alternative to the the overly volumetric, shape making obsessions that dominate international building design today." [Wines, 2006:p387] Architecture is too often designed aesthetically, "ignoring social

relations and rendering people passive" [Borden, 2001:p4]. Buildings are not pieces of sculpture, they are the functional background to society. They influence how people live and experience life which is always a subjective process continually evolving and being re-interpreted. Static formalist objects cannot accommodate the ever changing needs of society. Architecture should not control the activities that happen within it, it should support the activities that would naturally take place. It should be flexible in order to accommodate changing events and activities. Spaces should be designed with cross-programming in mind. Instead of designing the event itself, the spaces must be designed for the event to take place and encourage users to interpret space and impart their own meaning. [Borden, 2001]

We are in an age of information and ecology yet our design concepts are still from the age of industry and technology. "The language of architecture should now be more psychological than formal, more cosmic than rational, more informational than obscure, more provisional than stable, more indeterminate than resolved, more narrative than abstract" [Wines, 2006:p388]. Architecture needs to shift from "physical to cerebral" and be experienced as conceptual art is experienced: as a cerebral condition (mentally) more than a physical thing. Wines suggests an architecture based on "the absorption of information from context" and "on inversions of meaning and the inclusion of information from a variety of outside sources." Buildings should not be about form but rather about idea, attitude and context, "architecture as a dialogue in the mind." [Wines, 2006:pg390]

"The attention of the discipline has moved away from the urban form" [Aymonino, 2006:pg18] and the in-between space has taken priority over the solid elements. This space then becomes a dynamic narrative rather than a static processional void. An architecture of "complex relations and no longer just the relations between volumes" is possible [Aymonino, 2006: pg18]. Currently a lack of elements with the ability to connect the solid forms (the story meandering between the buildings) is felt [Morteo, 2006]. A building should not stand on its own within the urban context, it should rather be a condition that is not only a physical construction, but a social one as well. [Chamber, 2001]

TEMPORAL SPACE

The spaces in and between buildings are not "discrete multiplicit[ies] of inert things" but rather a "heterogeneity of practices and processes". This means that space is an "ongoing product of interconnections ... always unfinished and open". It is not just a physical surface. "It is always being made and always therefore, in a sense unfinished (except that finishing it is not on the agenda)", it is always undetermined and waiting to be determined by the arrival of new interconnections and relations. "There are always connections yet to be made, juxtapositions yet to flower into interaction, or not, potential links which may never be established. Loose ends and ongoing stories." [Massey,

2005:107]. By accepting and acknowledging this, temporal spaces can be created that allow meaning to continually evolve layer upon layer.

Designing un-volumetrically means joining together fragments over periods of time rather than proposing an overall design that may not be relevant in the future [Aymonino, 2006] . Spaces need to be flexible to allow change. They need to be able to adjust to the systems of economics and society. Landscapes and in turn spaces change as they collect residues of history [Lynch, 1990]. They change over time and are continuously becoming. They are "in waiting" therefore "architecture should ... be continually reproduced through use and everyday life" [Borden, 2001:p5].

ACTIVITY DRIVEN/EVENT SPACE

The temporal condition of space needs to be accommodated when designing buildings by designing event spaces that allow unexpected encounters, diverse activities and interruptions . Architecture should not control the activities that happen within it but it must encourage the urban experience through rhythm, surface conditions and sensory experience. Architecture then becomes a vehicle to aid perception and not something (an object) to be perceived. [Borden, 2001]

"Contemporary public space, that of mass society, is increasingly in need of forms to define and exalt ephemeral events" [Aymonino, 2006]. Temporary events which are usually entertainment, bring diverse people together with a sense of unity. Architecture gives form to these occasions. These events often happen spontaneously, and spaces are colonized and adapted on such occasions.

Expansive unstructured spaces must be avoided [Borden, 2001]. In language words and grammatical rules are used to structure the words together to make sense. An 'open sentence' consisting of a random selection of words strung together makes no sense. The structuring grammar is necessary to express meaning. The same is applicable for designing spaces. There needs to be structure to give the space meaning. There is no freedom without it like a poet cannot truly express his meaning freely without the structures of language. "Limits locate the object within the universe of possibility. Not only as possible, but as particular. This and not that." [Jones, 2006].

Expansive spaces in a city do not make sense. They do not take advantage of the many potential opportunities the urban setting offers. Using the existing situations as restrictions allows for far more meaningful spaces to be generated. Wines [2006, pg389] quotes a comment made by Picasso: "Forcing yourself to use restricted means is the sort of restraint that liberates invention. It obliges you to make a kind of progress you can't even imagine in advance." Diverse complex spaces give something for people to react to. They can engage with the space.

THE BUILDING AS A BACKDROP TO LIFE

Pretoria is a complex construct of two different spatial perceptions; built by a society from european heritage but now used mostly by people with an african heritage who were excluded from the urban development processes until recently. The laws and systems used today are still based on european urban ideals and thereby spaces keep being created from a spatial perspective different to that of the actual city user who perceives space from a communal point of view. The focus on individual ownership needs to change to take advantage of the urban opportunities and complex relations that exist in the city. Democratic, non-prescriptive spaces that celebrate the community over the individual are created by focusing on spatial experience and appropriate contextual and social responses; rather than on creating aesthetically appealling objects in space. Such spaces will be adopted into the flows and connections of the city encouraging the users to engage with them and turning them into temporal and used, event spaces. The city therefore emerges as a backdrop to the stage of life.

Fig. 37 Informal interventions

5 DEVELOPMENT

From the discussion in the Dialogue/Problem section a few key principle emerged to inform the design process. The building needed to be developed along the principles of African space, from a communal, humanist point of view. The focus of the design process needed to be on spatial experience through appropriate contextual and social responses and not on creating a pleasing object.

SITE INFLUENCES

The following analysis sketches show the main social and contextual influences on the site. A consistent pedestrian flow occurs on the western side of Paul Kruger Street. This route is one of the connections between the Church Street commercial pedestrian area to the south and the transport interchanges (Bloed Street Taxi rank and Belombre Train Station) to the North. There is also a large flow of school children who pass this point after school. This side of the street has more commercial opportunities and therefore attracts more people. The properties on the east side of Paul Kruger St opposite the proposed site have been vacant for a number of years and offer little attraction for activity.

The fine grain commercial activity along Paul Kruger street is broken along the section between Struben and Bloed Street. The current use of the proposed site (a second hand car dealership), the light industrial printing press next door and a large warehouse type wholesale shop on the corner of Paul Kruger and Bloed have created a harsh edge along this section of Paul Kruger street. No opportunities for fine grain commercial activity exists along this section. By encouraging these types of opportunities the fine grain activity along Bloed St to the north will connect with the activity south of Struben St, which starts again outside the Panagos Building. It is therefore important to provide spaces that will attract micro scale traders.

The important views from the site are to the Union Buildings and Church Square as described in Section 2. The view to the Synagogue is also significant and needs to be considered. Changing the surface material of the Paul Kruger and Struben St intersection as proposed by Re Kgabisa framework will emphasise the importance of the intersection.

By opening up the corner and allowing pedestrian movement to cut across it, the space will become activated and people will be encouraged to stop. In the design process ways will be developed to add to this with the result of some people spending a moment (even a brief one) to notice the place instead of blindly passing through as they do now.

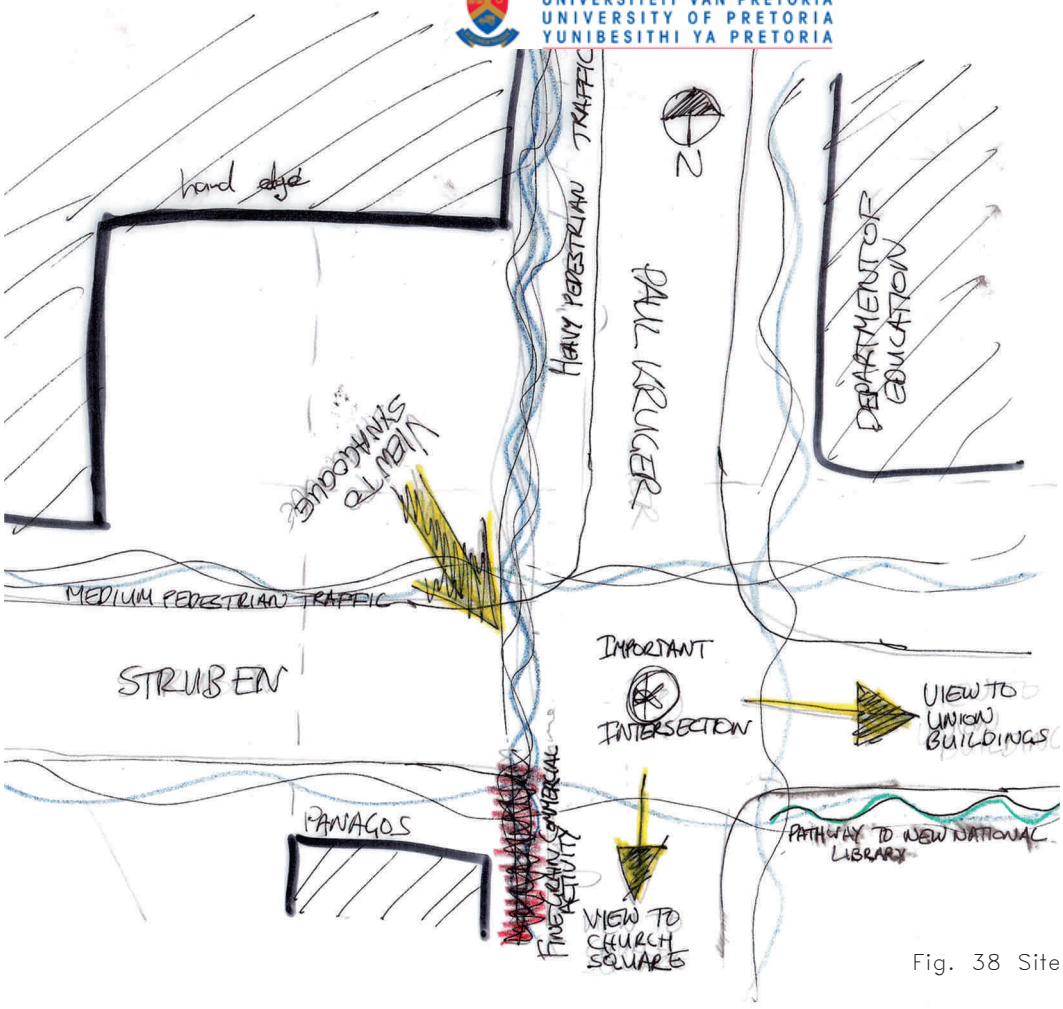


Fig. 38 Site analysis sketch

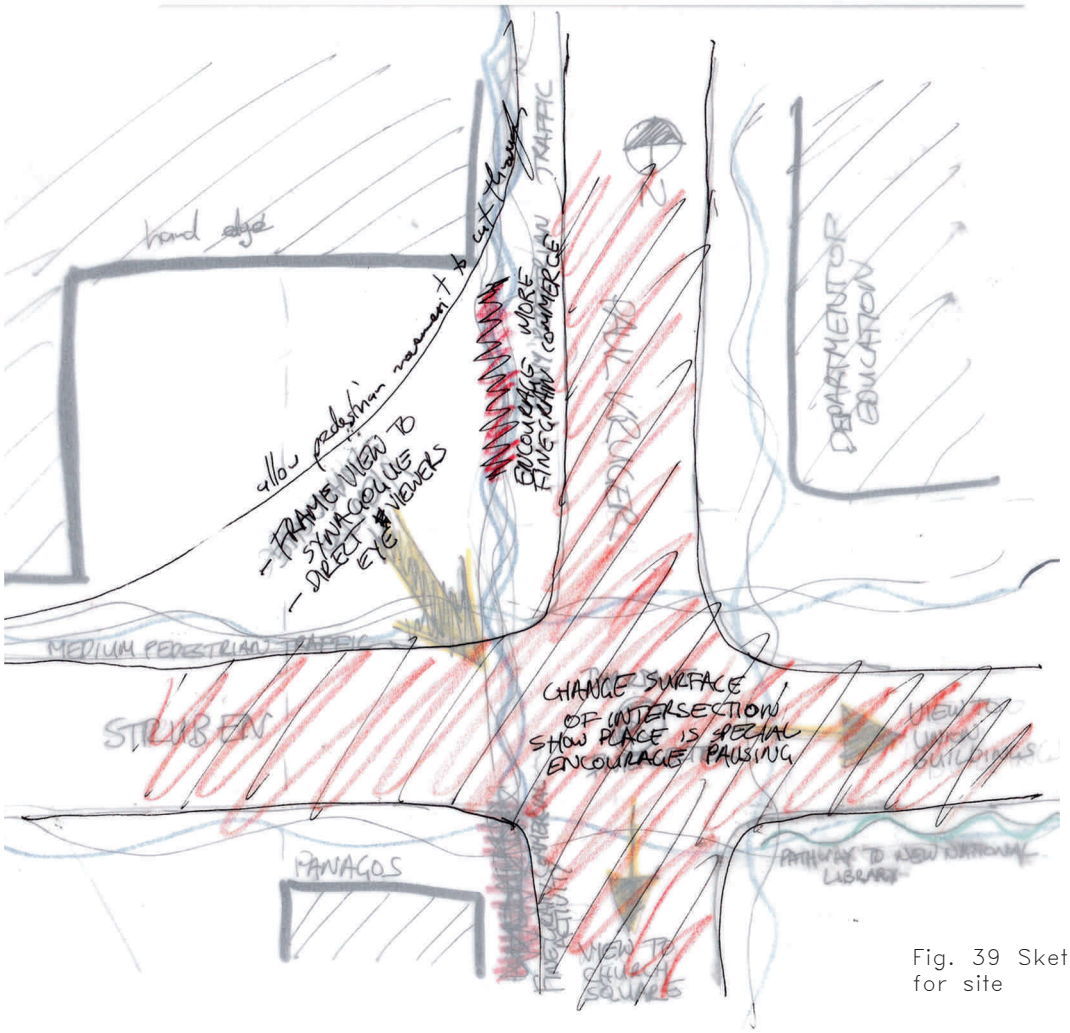


Fig. 39 Sketch of proposals for site

Fig. 40 Volume study along Struben St

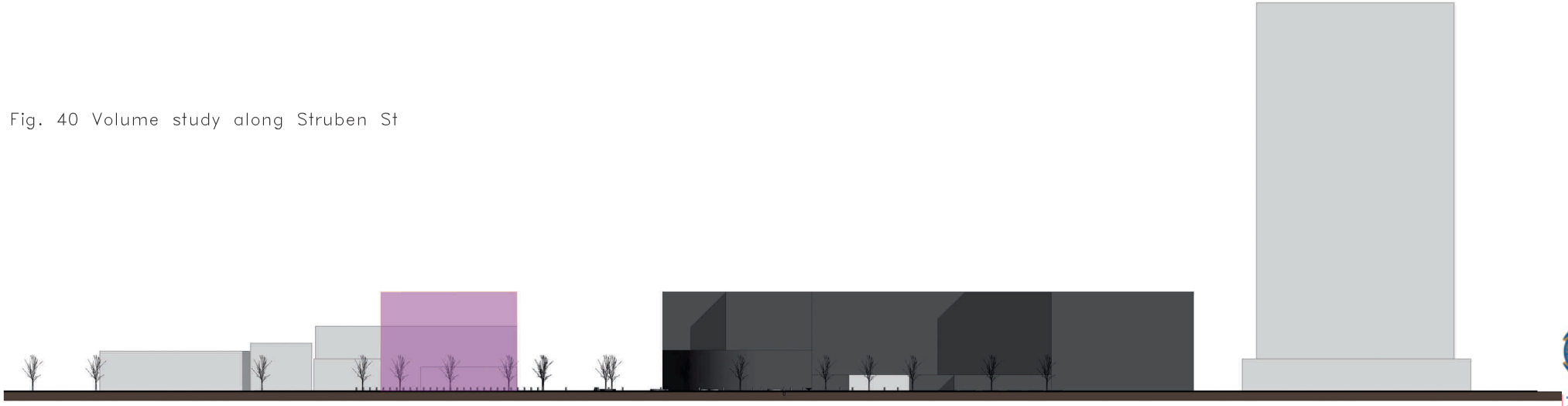
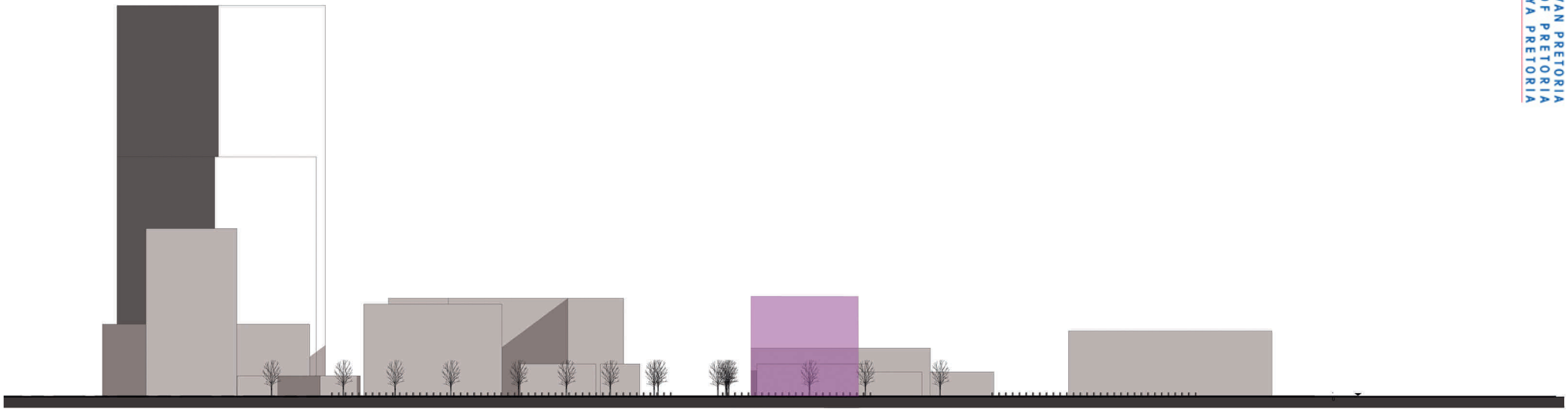


Fig. 41 Volume study along Paul Kruger St



The sun path and angles were studied as part of the climatic influences on the site to be considered during the design process. The buildings to the north and west of the site are currently only two storeys high but with the development of the area within the proposed framework, larger buildings will be constructed there in the future. It is therefore assumed that the Language Centre will not have exposed north or west facing façades. Natural illumination can then only be received from the southern and eastern façades.

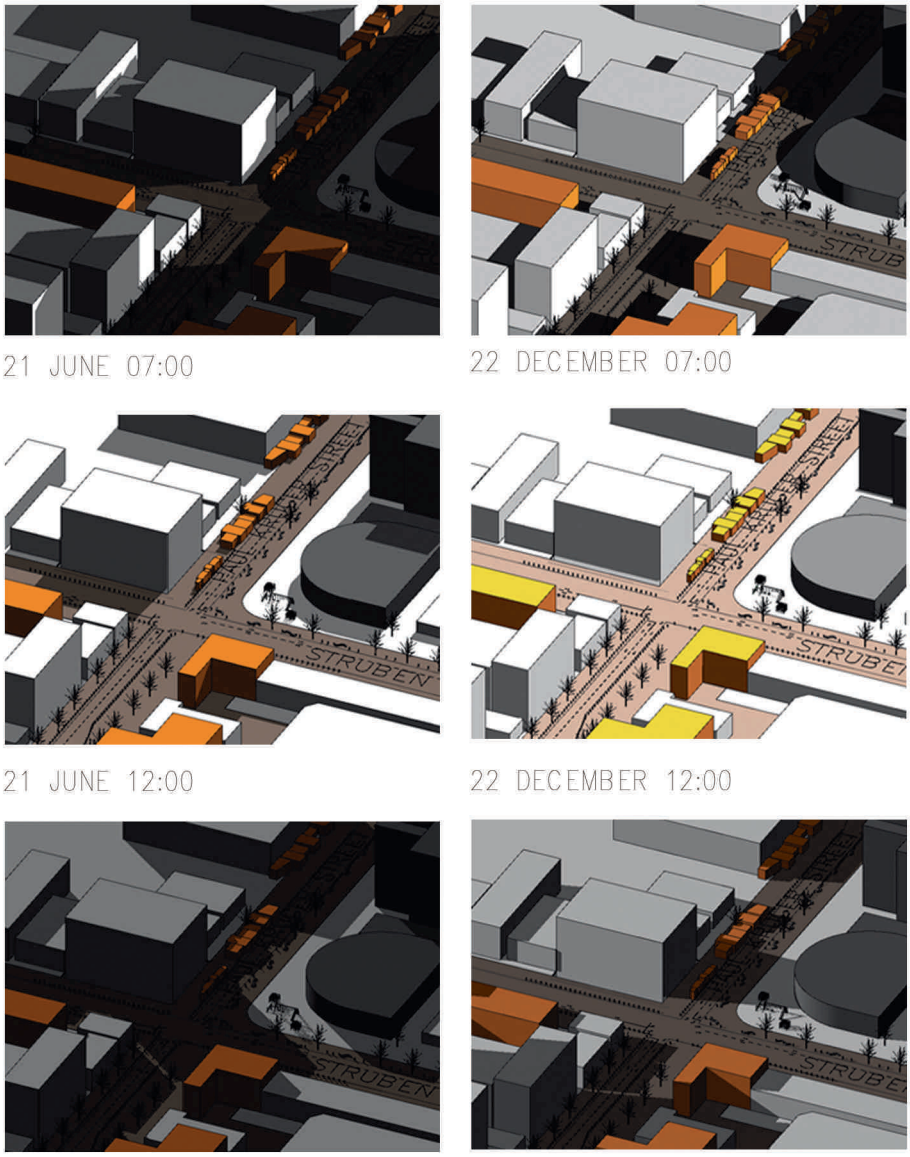


Fig. 42 Sun angle study

DEVELOPING THE PROGRAM

The next step was to determine the spatial requirements and solve the spatial planning. The following two precedents were investigated in order to determine the programme and accommodation schedule.

THE SCOTTISH STORYTELLING CENTRE, EDINBURGH

Scotland has a strong heritage of oral traditions. Storytelling is seen as both art and hospitality at the same time. "It is an inclusive and integrative art form embracing literature and performance" [MacNeil,2005:1]. The Scottish Storytelling Centre, designed by Malcolm Fraser Architects, was built on the Royal Mile at the old mediaeval entrance to Edinburgh.

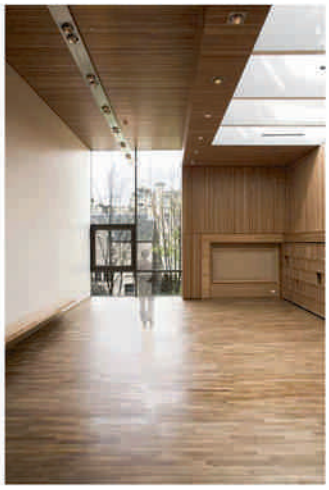
An existing underutilized courtyard on the site was enclosed to become the Storytelling Court, the heart of the building. The Storytelling Court is a venue for performing and gathering. It contains a 'wall of stories' which is used as a tour guide to stories through visual, tactile, virtual and audio means. It contains displayed objects which generate stories and facilities for users to tell, record and send their stories through the Internet. The web is used as a network of stories. The 'wall' can be moved aside to reveal a stage. The space can be further divided up into more intimate storytelling spaces.

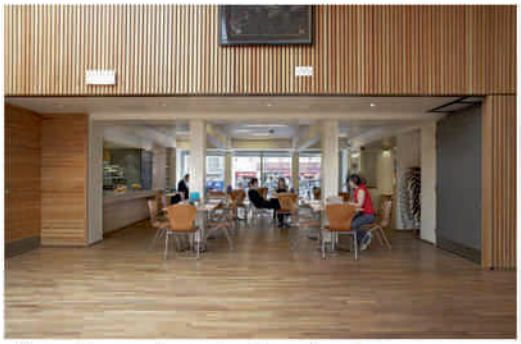
The Court is a double volume space with large rooflights and a large window overlooking a court garden to the rear. The existing garden designed in 1999 by landscape architects Turnball Jeffrey is an appropriate setting for outdoor storytelling gatherings. The window pivots open connecting the garden to the court.

The other side of the court is connected to the Royal Mile through another large window, behind which sits a coffee shop. This is the most public part of the court and demonstrates the idea of hospitality within storytelling. It can function partitioned off as an external foyer or bar to the court or it can (as it usually is) be opened up and part of the court space directly servicing it.

A multi–purpose performance space was proposed directly below the Storytelling court. The fixed seating was to be replaced with movable bleachers for flexible stage configurations. The actual built auditorium however still contains fixed seating. It has a visual connection to the garden through a window which allows light and interaction in but can be shuttered off to achieve total darkness.

Above the Storytelling court is the Education and Resource Room which contains a library and reading/viewing room. This space can be used to





View through cafe to street

Wall of stories

Storytelling Court

View from cafe through Court to garden

Fig. 43 Scottish Storytelling centre

host seminars and less public events than those that would be hosted in the Court.[MacNeil,2005]

One of the key concepts taken from the Scottish Storytelling Centre was the flexibility of the storytelling court and its connection to the public realm. The Centre has a clear transition from public to private but still manages to be well connected and inclusive. Connections are not only made spatially but also through the web. Visitors to the centre can record their own stories, leaving something of themselves behind. The spaces are neutral and can be defined as is necessary for different occasions.

Storytelling Centre Accommodation:

- The Storytelling Court: flexible and open
- The wall of stories: interactive connection to the world, inspire's stories
- Coffee shop: welcome, relates to street (public) and to Court (semi-public to private)
- Auditorium: multi-purpose, flexible
- Education and Research room: library, reading/viewing room, less public seminars

THE BATS CENTRE

The idea for the BATS Centre, designed by Paul Mikula, started around 1990 when the promise of a new democracy inspired the concept of a new, free place that would belong to everyone. It is situated at the Durban harbour alongside where the tugs are docked. This site, opposite the city, was specifically chosen because it was an international place visually exposed to ships from all over the world and most importantly (at that time) with no stigma attached to it.

All the existing buildings were incorporated in the new design in the spirit of respecting and re-using things. In line with this most of the doors and windows and many other components were rescued pieces from buildings being demolished elsewhere in Durban. The structural grid was established from that of the original training centre and repeated as the ordering system throughout the new sections.

All the spaces have been designed with the potential use and users in mind. The spatial quality is on a human scale but the volume responds to the magnitude of the ships and the harbour. Although the volume as described to the author by Paul Mikula is "big and proud" the internal spaces are interconnected intimate spaces leading on to one another drawing one deeper into the building.

The BATS Centre is used as a precedent to understand its sense of place. The site is out of the way but its presence is enough to draw one to it. Whats interesting is that its not a physical presence

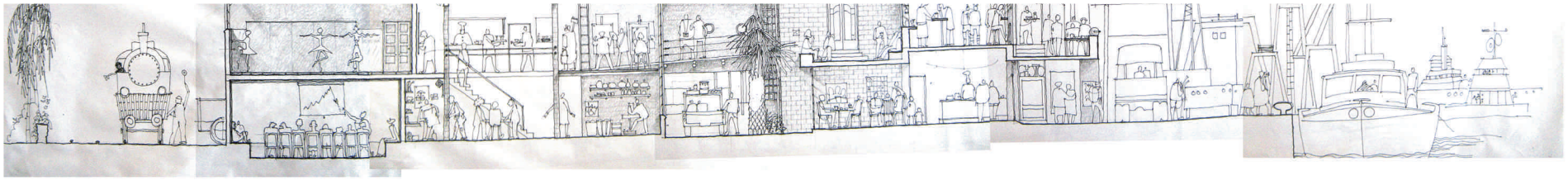


Fig. 44 Cross section of the Bats centre

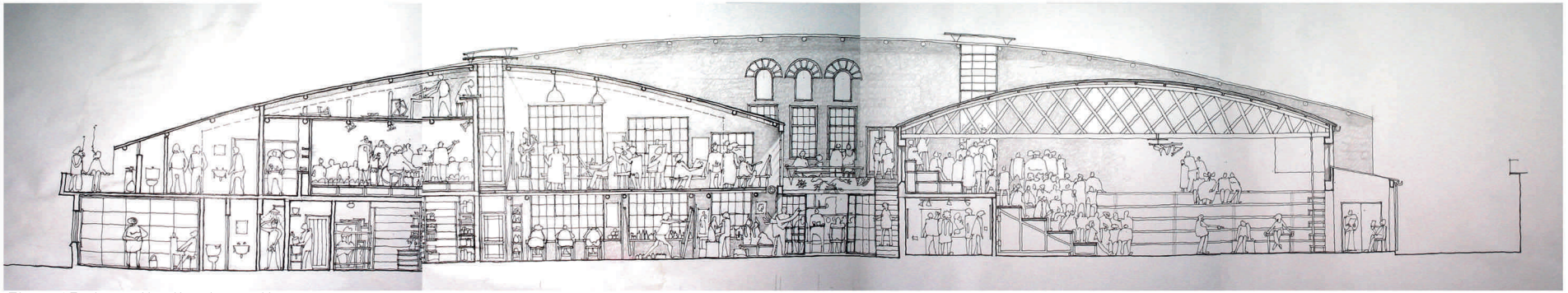


Fig. 45 Longitudinal section

Fig. 46 External view of the BATS Centre

Fig. 47 Photo montage of internal courtyard

that is attractive, its an 'experiential presence' that is passed on word of mouth that draws people in who also want that experience. It keeps them going back as well. Another important aspect is how well connected all the spaces are, and how permeable the building is. This is achieved through a central courtyard onto which most of the spaces opening onto, establishing an easy flow. Again there is a well developed transition from the public bar and deck to the more private art studios without restricting access to them.

DEVELOPING THE ACCOMMODATION

In the following diagram ideas for the functions are laid out indicating their relationships with one another and the initial vision for each space. From this initial description, a formal accommodation schedule was established setting the baseline criteria for the spaces. The accommodation schedule developed as the design process progressed and spaces were adjusted with some functions being removed and other ones being added later on. These are shown later in the chapter.

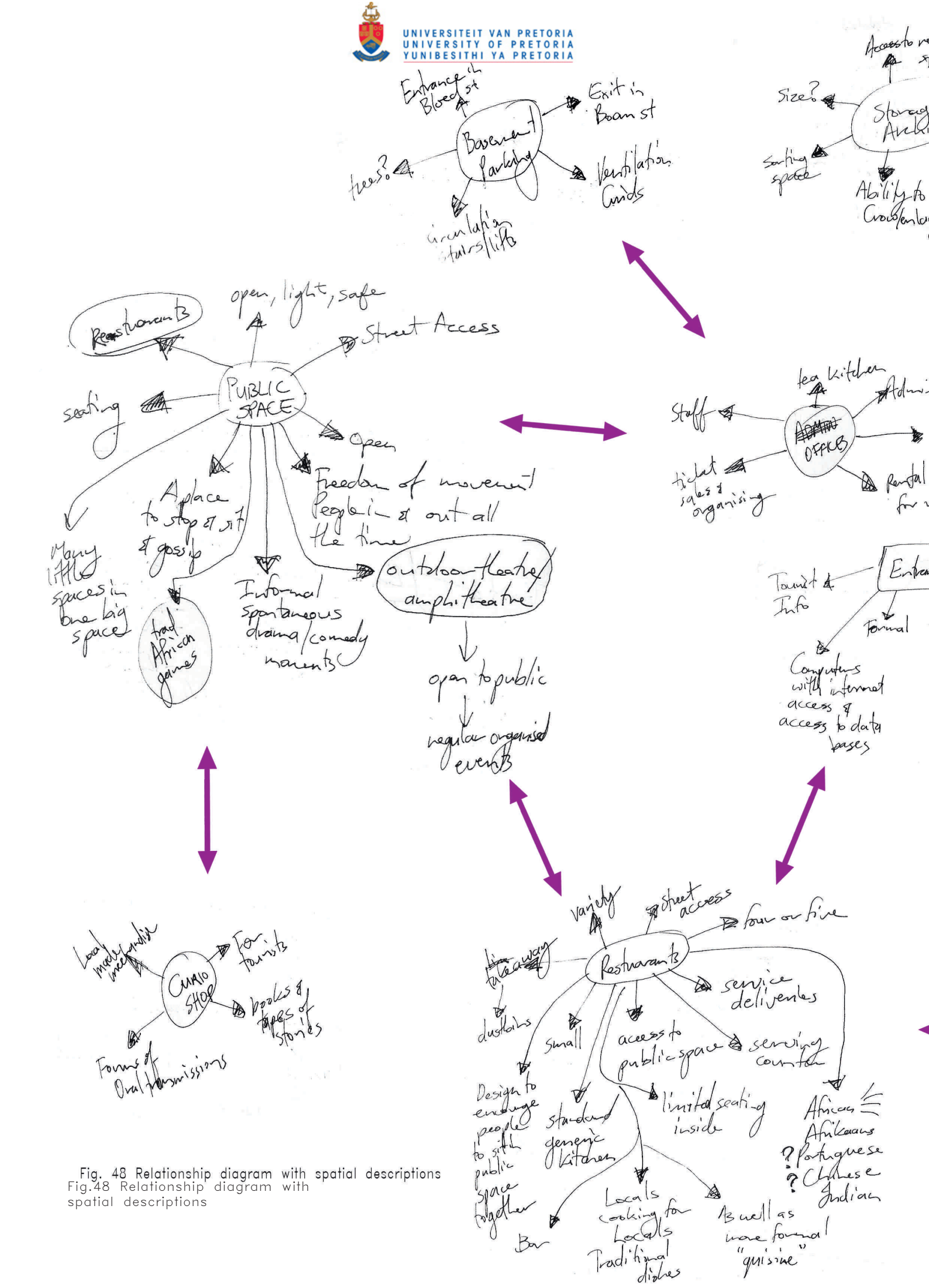


Fig. 48 Relationship diagram with spatial descriptions

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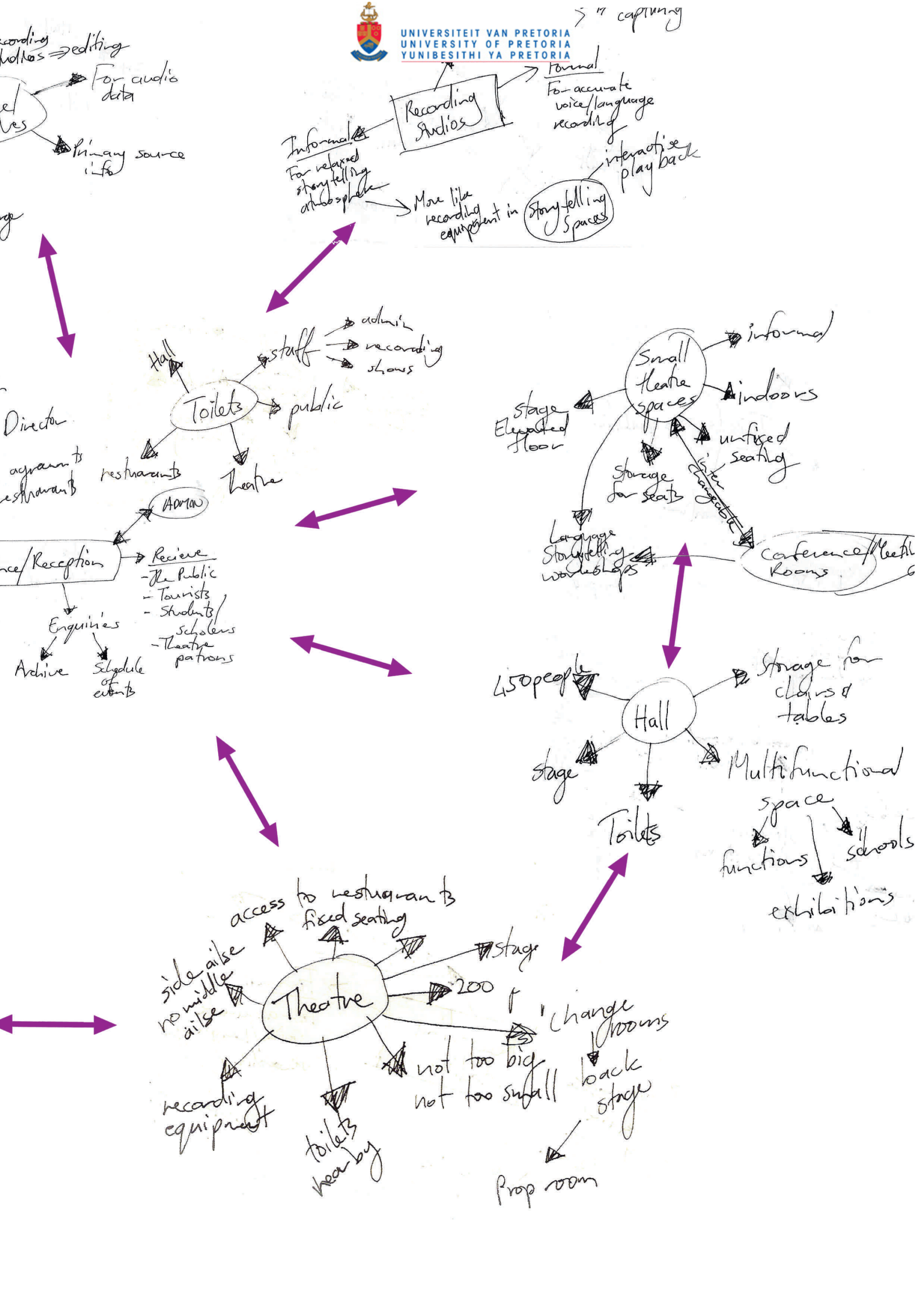

Recording Audios
Formal
For accurate voice/language recording
Informal
For relaxed storytelling atmosphere
More like recording equipment in
Storytelling Spaces
interactive playback
For audio data
Primary source info
editing
Toilets
staff
admin
recording
shows
public
hall
restaurants
Theatre
Director
Admin
Reception
Recieve
- The Public
- Tourists
- Students/ scholars
- Theatre patrons
Enquiries
Archive
Schedule of events
Small theatre spaces
informal
indoors
Stage Elevated floor
unfixed seating
Storage for seats
Conference/Meeting Rooms
Language Storytelling workshops
450 people
Hall
Storage for chairs & tables
stage
Multifunctional space
Toilets
functions
schools
exhibitions
access to restaurants
fixed seating
side aisle
no middle aisle
Theatre
stage
200 p
change rooms
back stage
not too big
not too small
recording equipment
toilets nearby
Prop room

BASELINE DOCUMENT

		Details	Users	b	l	h	Area		Requirements
1	Reception	Foyer					100		Accessible from parking area
		Information counter							Accessible for pedestrians
		Ticket office							Access from public transport
		Tourist Information							Computers with internet access
									Access to archive database
2	Public space	Level with pavement							Street access
		Seating							Access to public transport
		Toilets: Female: 6WC, 4WHB					15	m^2	Freedom of movement
		Male: 3 WC, 2WHB, 8 urinals					15	m^2	People in and out all the time
									Informal, spontaneous
									Theatrical moments
									Traditional African games
									A place to stop, sit and gossip
									Smaller spaces within the whole
									Open, light, safe
3	Amphitheatre	300 people					200	m^2	
4	Theatre	Accommodate 200 people 1m^2/person	200				200	m^2	1m^2 /person
	Lectures	Flexible seating arrangements				8		m^2	
	Storytelling	Stage		4	6		24	m^2	
		Small Backstage (no big productions)		3	6		18	m^2	
		Recording equipment/room		1.5	2		3	m^2	
		Refreshment sales		2.5	4		10	m^2	NOTE: Language conferences require 200 delegates to be accommodated (www.langdevconferences.com)
		Toilets: Female: 6WC, 4WHB					15	m^2	
		Male: 1 WC, 2WHB, 5 urinals					10	m^2	280
5	Multi-functional rooms	Smaller theatre spaces		5	10		50	m^2	
		Meeting rooms							
		Unfixed seating							Informal, spontaneous
		Storage for tables and chairs		3	3		9	m^2	
		Stage - elevated floor		1.5	3		4.5	m^2	
		language/storytelling workshops							
		Hall					300	m^2	

		Toilets: Female: 6WC, 4WHB					15	m^2	
		Male: 1 WC, 2WHB, 5 urinals					10	m^2	
									388.5
6	Recording studios	Editing rooms		1.5	2		3	m^2	
		Data capturing		1.5	2		3	m^2	
		Formal–accurate voice/language recording		3	4		12	m^2	
		Informal – conversation booths							relaxed storytelling atmosphere
		Toilet: 1 WC, 1WHB					1.5	m^2	
									19.5
7	Archives	Storage of audio data					200	m^2	
		Primary source data							
		Sorting area		2	2		4	m^2	
		reception/security		2	2		4	m^2	
		Ability to grow/enlarge							
		Seating area					375	m^2	
		Toilets					4	m^2	
		2 WC's 2 WHB per floor							587
8	Offices	Administration		2	3		6	m^2	
		Management		2	3		6	m^2	
		Toilets					4	m^2	
		2 WC's 2 WHB							16
9	Coffee shop	Service deliveries (small delivery trucks)		10	4		40	m^2	Street access
		Light meals							
		Large beverage trucks		25	5		125	m^2	
		Toilets: Female: 3WC, 3WHB					10	m^2	
		Male: 1 WC, 2WHB, 5 urinals					10	m^2	185
10	Shop	Curios		5	5		25	m^2	
		Local crafts/merchandise							
		Traditional medicine							Expressions of oral traditions
		Local fabrics and clothes							
		Local clothes							25
11	Radio broadcasting	DJ Room		2	2		4	m^2	
		Technician Room		2	2		4	m^2	

NOTE: Baseline areas and dimensions were obtained from *Metric Handbook Planning and Design Data* (Adler:1999)

ZONING	General Business
FSR	2,5
HEIGHT	25m
BUILDING LINES	Sides: Null Street: 3,5m
COVERAGE	60%

A coverage of 60% underutilizes a site in the city and therefore an application will need to be made for 100% coverage. The street building line of 3,5m should also be relaxed in order to define the street and activate the edge.

SITE AREA = 1067m2
ALLOWABLE FLOOR SPACE = 1067x2,5
= 2667,5m2

Total area from Baseline Accommodation Schedule = 1819m2

CONCEPTS

ORDERING SYSTEMS

Once the necessary accommodation was established, the spaces were separated into three categories. The first category defined the core functions. The other two categories were based on the African concept of public and ritual/private space. The auditorium, recording studios, archives and ablutions were categorised as the ritual/private spaces because of their fixed nature and specific requirements. The rest of the functions could be categorised as public spaces because the functions did not prescribe any specific spatial requirements.

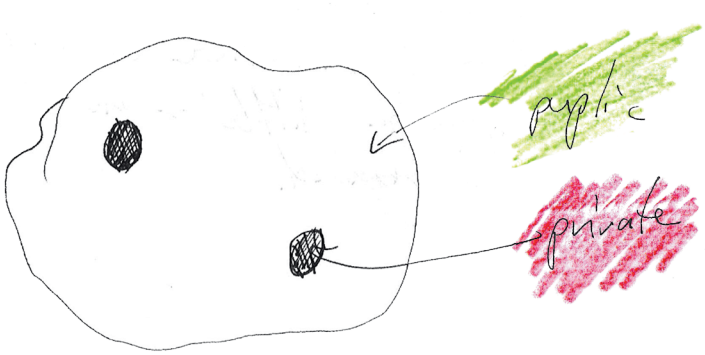


Fig. 49 African concept of space

CORE	*PRIVATE/RITUAL*	*PUBLIC*
Entrance/reception	Archives	Public Space
Offices	Recording Studios	Restaurant
Ablutions	Theatre	Small theatre spaces
		Hall

Fig.50 Categorizing functions into public and private space (Refer to Fig. 48)

A second ordering system was developed to establish the transition from the chaotic public space to the quieter spaces necessary for research and archives. The concept worked on the idea of the building being a backdrop to the storyline of a visitors experience within it. The beginning of a persons experience of the building would start in the public space which is compared to the introduction of a tale. The staircase/seating and the reception area would set up expectations, and orientate the person. The body and climax of the story occurs in the auditorium where events occur. The conclusion of the story would take place in conversations over a meal after the event.
The story continues after the actual telling of it has ended through the interpretation and understanding that remains with the visitor, who will reflect on it again at other times. The documenting and recording of stories fits into the interpretation phase, while the archives provide for further understanding and reflection.

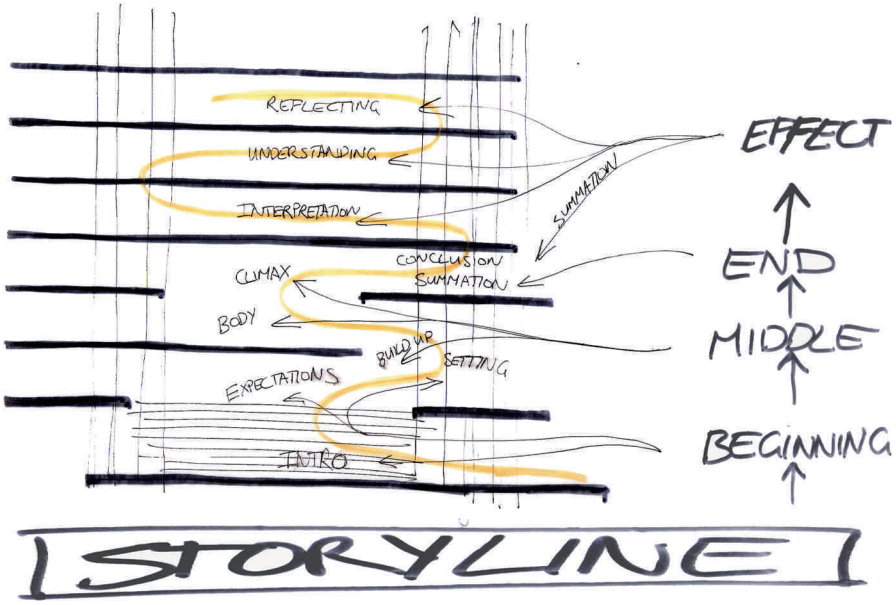


Fig. 51 Storyline concept

The flow and rhythm through the building was based on African oral tales which have an identifiable way of being told. "The narrative is structured in a linear pattern, often interspersed with digressions and marked repetitions." ... "slow rhythm, which might enrage the Western spectator, reflects the African mode of living." [Wynchank:1994:p15]
These ideas were kept in mind throughout the design process.

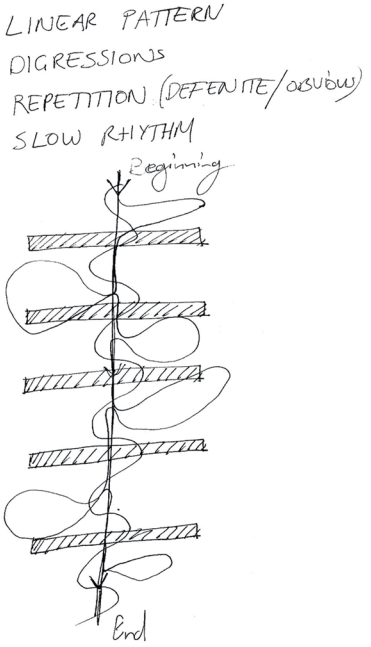
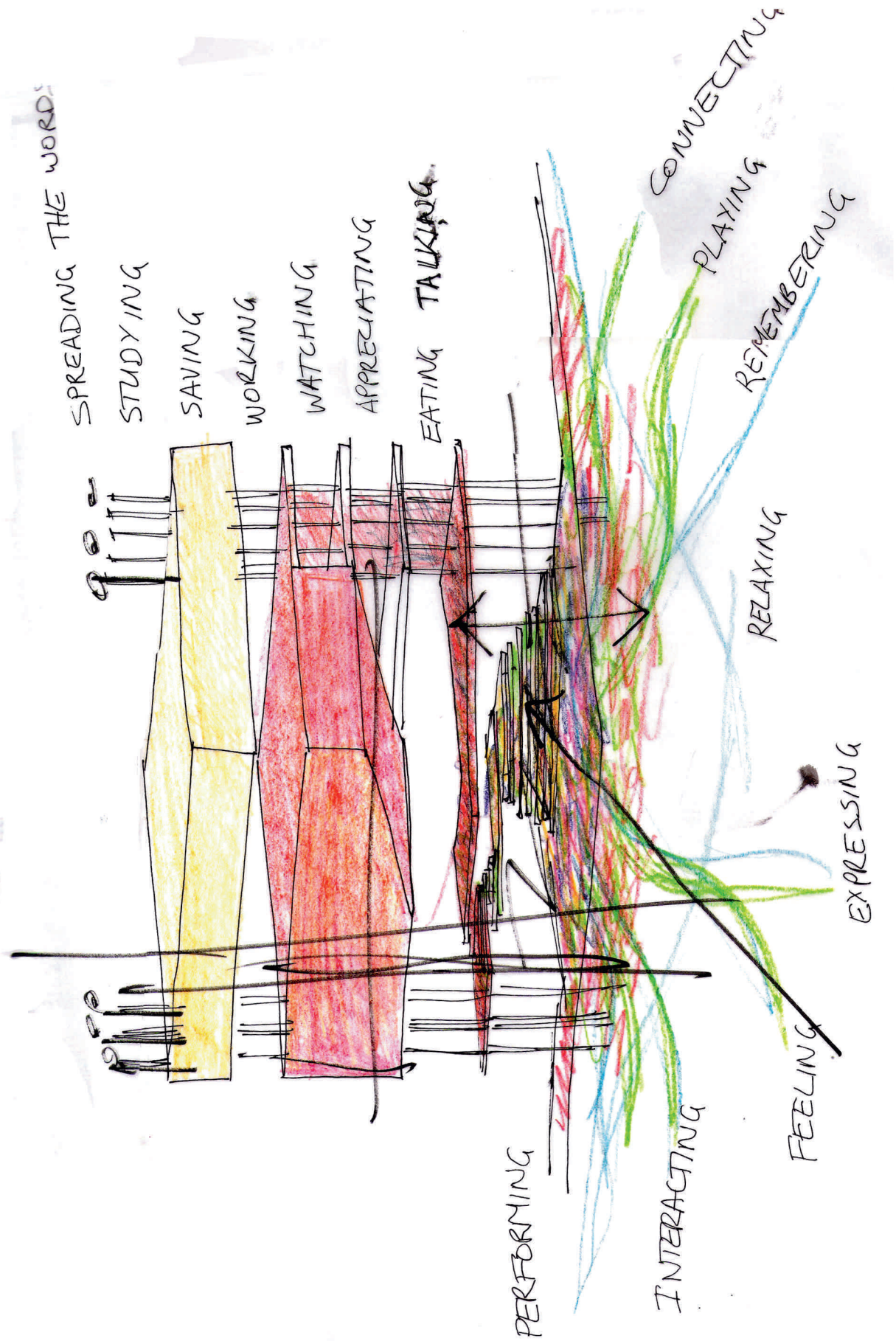


Fig. 52 Diagrammatic interpretation of the telling of African oral tales

Fig. 53 Concept sketch with colour representing desired atmosphere for spaces



A critical decision was made early on to combine the amphitheatre and the public space. It was decided that the seating for the amphitheatre would then double up as the stairs and the main entrance into the building.

DESIGN PHASE A

Once the feeling, vision and accommodation had been determined ideas for the structure needed to be explored. Toyo Ito's Mediatheque in Sendai was investigated as a possible way of resolving the structure and getting light into the deeper parts of the building.

STRUCTURE: TOYO ITO'S MEDIATHEQUE IN SENDAI

The basic idea for the Mediatheque was a large volume of glass, a square plan of 50x50m, and a height of 37m. Three elements of compositions were used: 6 linear planes; 13 reticular columns and an external skin.

The planes are thin square sheets suspended in the void at different heights. The columns are tubular steel structures which support all the floors, permit natural illumination and contain the vertical circulation and ducts. The skin consists of 4 façades and a roof. Each one using a different architectural solution that accentuates its 2d graphic quality and differentiates it from the others.

The three elements are separate from each other, each being a self sufficient system. The building is therefore not a large solid volume. It is ephemeral and insubstantial architecture, designed not to last. The light almost immaterial structures "resembl[e] temporary installations that reflect the fragile dynamism of great Japanese cities." [Maffei, 2002:232]

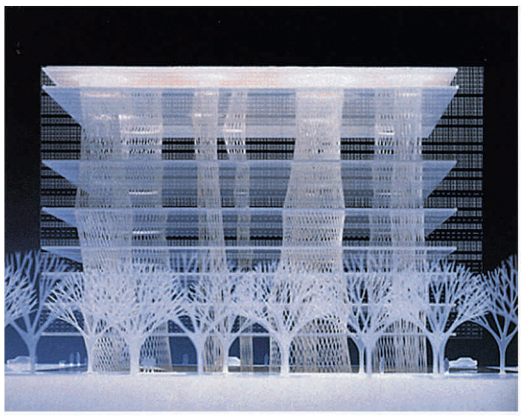
Each floor contains a different function and different interior designers were used for each. The interiors were designed as installations Different colours, form and materials create the "effect of stratification as if various fragments of the city had been laid one on top of the other."[Maffei, 2002:232]

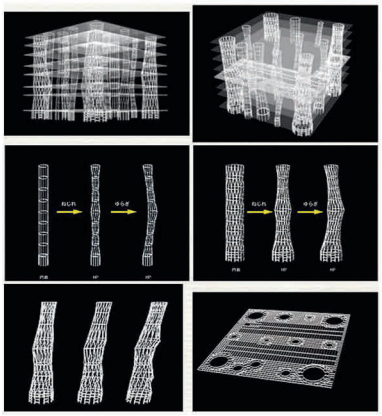
The ground floor contains a covered plaza which can be completely opened onto the urban surroundings and becomes a filter between the building and the city. The upper levels are open plan traversed by the reticular columns. Back areas are used for service functions and staff. The front is completely glazed and faces onto the main street open to the urban landscape. The public spaces are housed therein.

The neutral system of the building allows solutions to be defined floor by floor. The first floor spaces are bound by retractable synthetic white drapes. The second and third floor is laid out as a double volume library with reading rooms. A regular grid of ceiling lamps characterizes the space. On the fourth floor is a gallery with some partitioning that can be moved along tracks in the ceiling to accommodate the space as necessary. The fifth floor is an open plan gallery which can be adapted to any installation. The reticular columns can be left open to let in light or closed off with black drapes. The actual Mediatheque is on the top floor.

A computerized system of rotating mirrors is installed in the upper

Fig. 54 Photo montage of Mediatheque





part of ... reflect natural light down to the lower floors, allowing the automatic control of internal illumination.[Maffei, 2002]

The key concepts identified from the Mediatheque were:
– the reticular structural columns for circulation and illumination
– the flexible spaces defined by users with drapery or movable partitions
– The neutral building system allowing solutions to be defined floor by floor
– The ground floor plaza as filter between city and building

PATTERN

Patterns have played an important role in non–literate African communication. The ability to produce patterns was a very important element of communication where writing had not developed. Patterns of numbers, geometric patterns and rhythmic patterns in beading or weaving had specific meanings and all formed part of African daily existence. An example can be found in the Jokwe people of Angola of a story network. The network is used to tell the story of the beginning of the world. (see fig.) [Zaslavsky,1979]

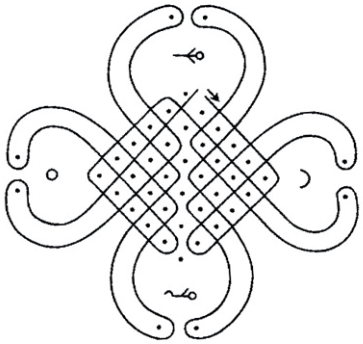


Fig. 55 Jokwe story network depicting the beginning of the world

The design process began by using the idea of a pattern on the floor with the intention of using it as a formula for planning. The site was divided into 6x6m squares incorporating a pattern based on traditional African motifs. It was a conceptual attempt at using a non–volumetric system to generate the building.

The system was too rigid and trying to fit the planning in was impractical. In addition trying to design a pattern was problematic in that it was based on aesthetic appeal and therefore going against the intention of having temporal activity driven spaces.

Conceptually, the idea of the pattern remained but the approach changed. Instead of designing a pattern from which a building could be extracted; the building needed to be designed first and then a pattern would hopefully emerge to be used as an iconic reference for the building. African patterns were often derived from stories or experiences. The message is usually there first and the patterned representation then follows [Zaslavsky:1979]. With this in mind design attempt B focused on getting the relationships and flows between the spaces to work.

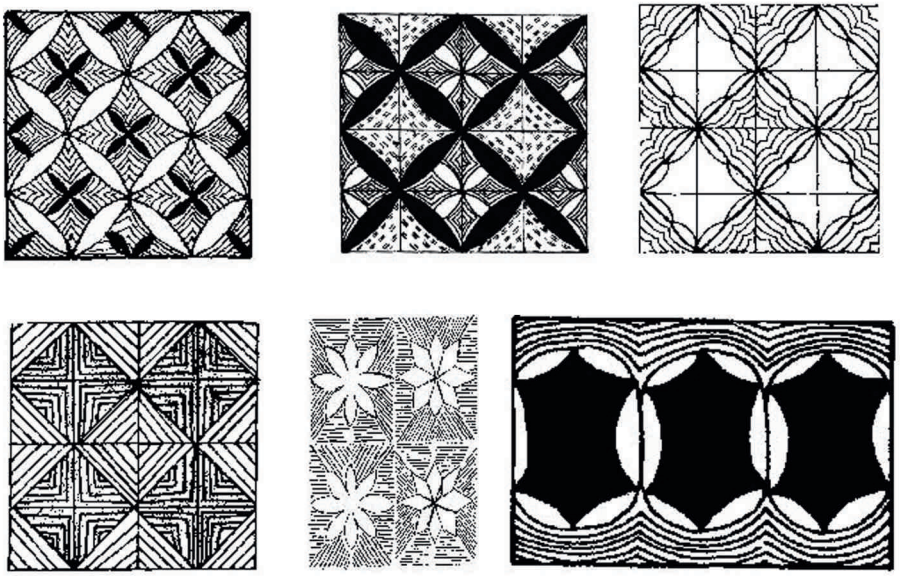
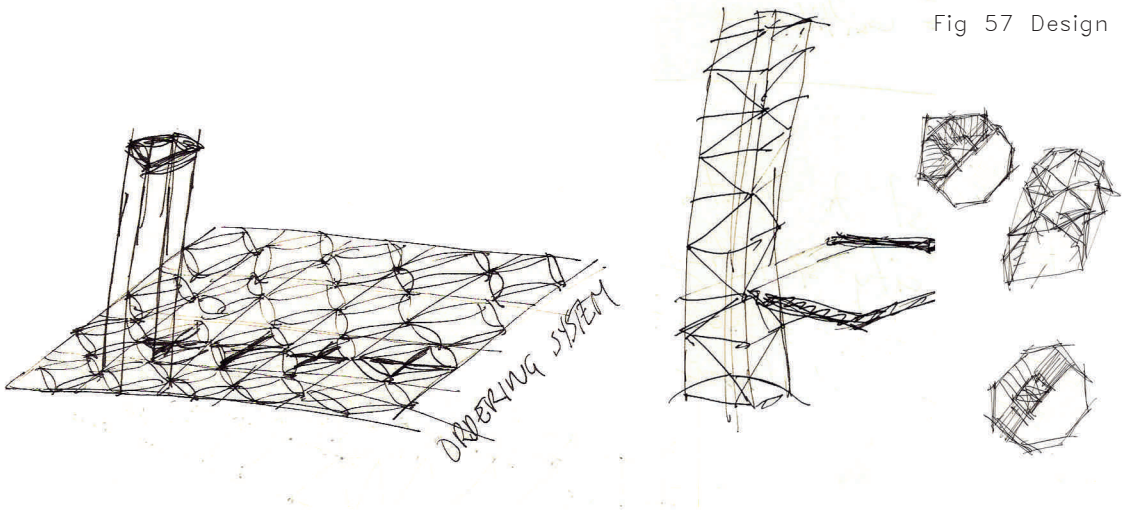
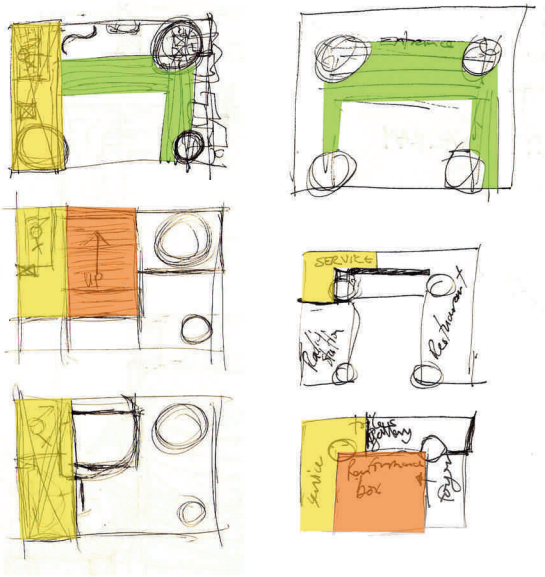
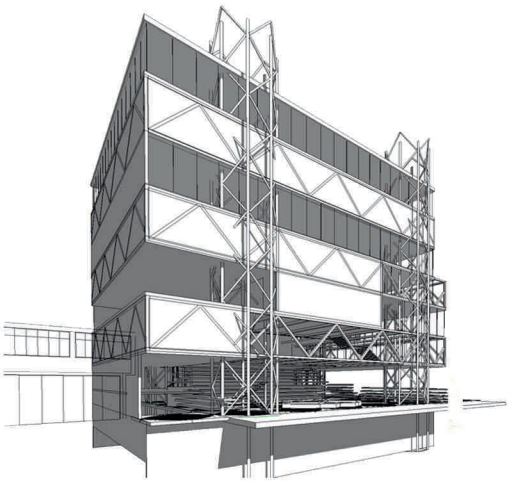


Fig. 56 African motifs

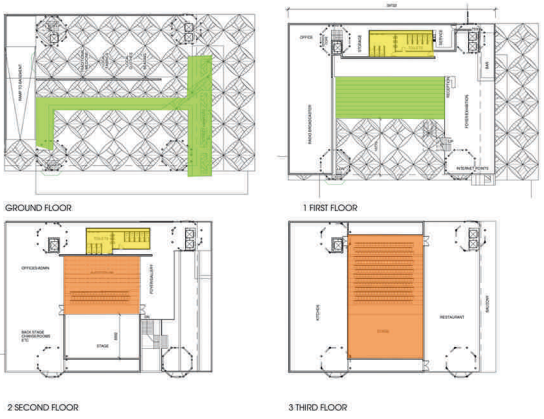
Fig 57 Design Phase A

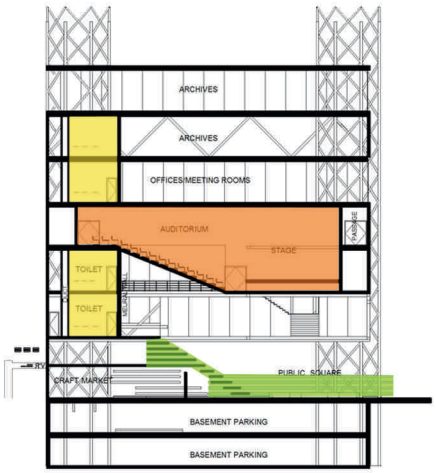




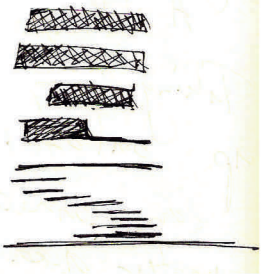


EXTERNAL VIEW SW





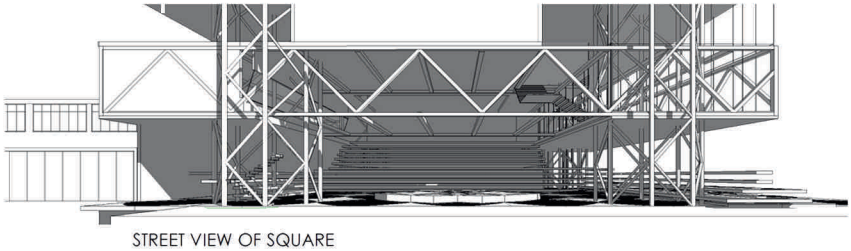
CROSS SECTION



STAIRCASE/SEATING

AMPHITHEATRE

CORE FUNCTIONS



STREET VIEW OF SQUARE

DESIGN PHASE B

FUNCTIONAL & SPATIAL RELATIONSHIPS

The most important planning problem was the relationship between the public space, the seating/entrance staircase, the theatre and the restaurant. At this stage the attempt was to try to connect them over three levels.

An important step that occurred at this stage was to consolidate the core functions: ablutions , circulation and service spaces. Also at this time it became apparent that the programme did not require a full restaurant. This was scaled down to a coffee shop with facilities to provide light meals and drinks. It was unnecessary to include large changerooms for the auditorium, considering that the types of events that would need to be accommodated would be conferences, poetry readings or storytelling. Large productions would be accommodated at the State Theatre nearby.

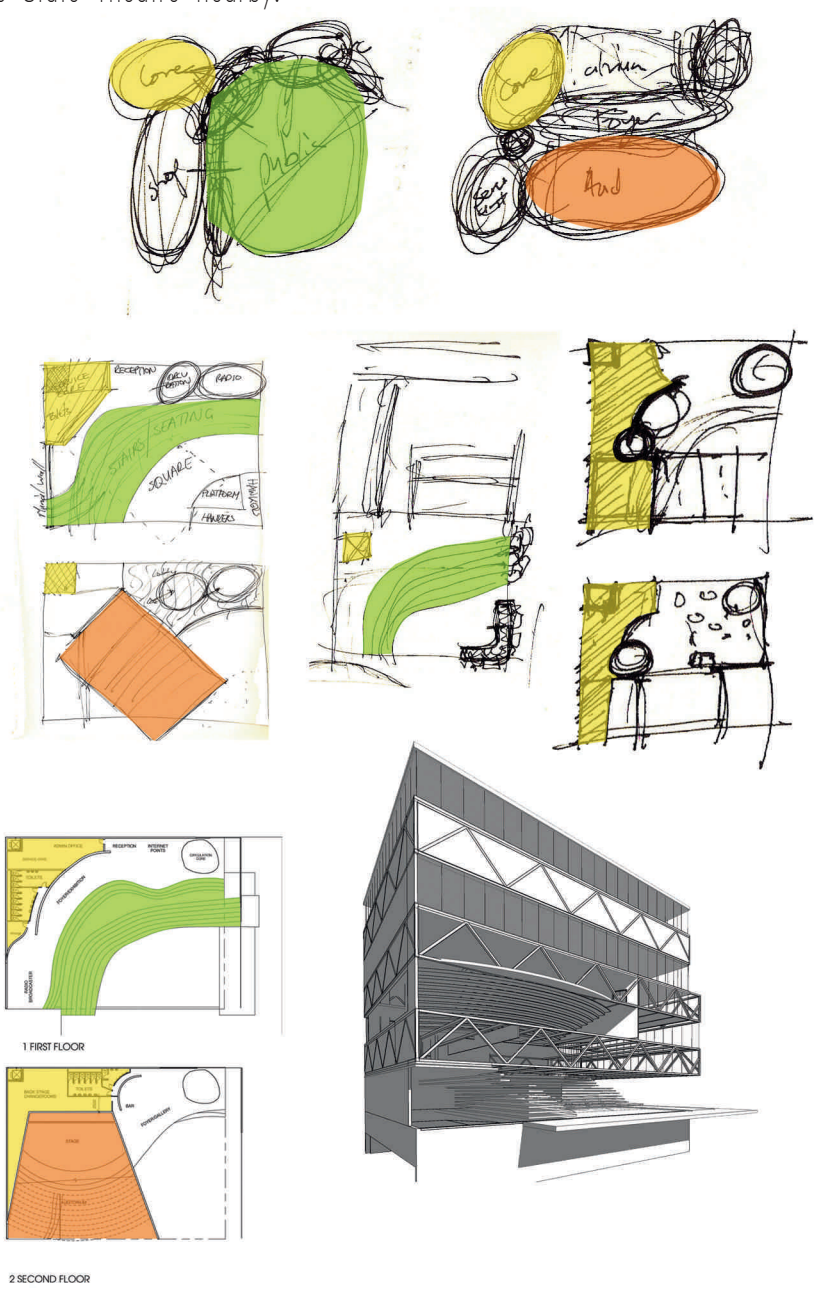
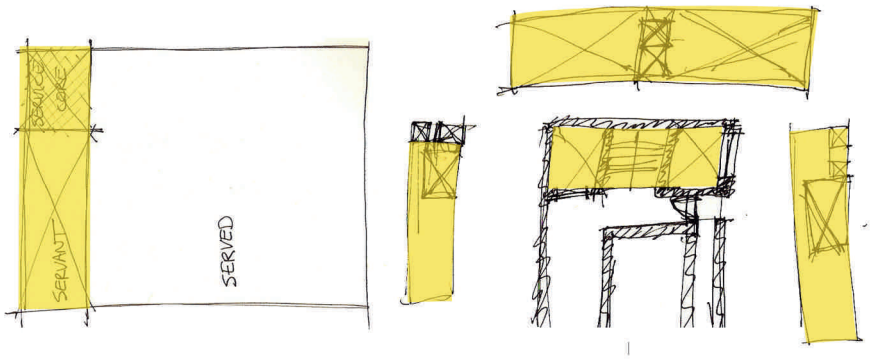
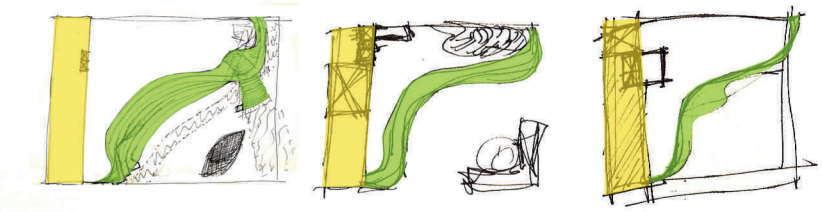
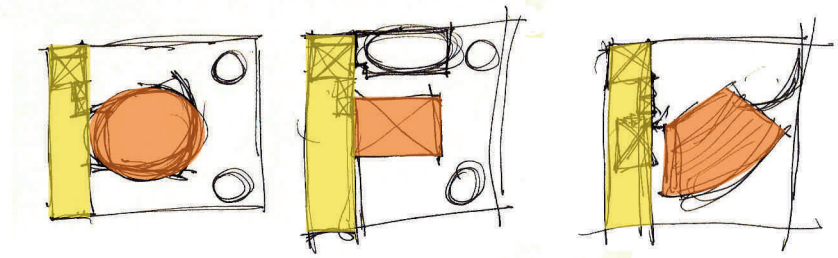


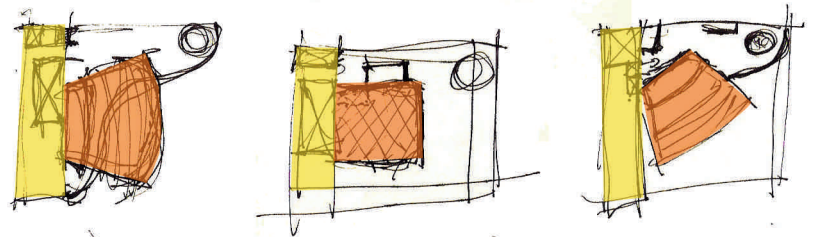
Fig. 58 Design Phase B



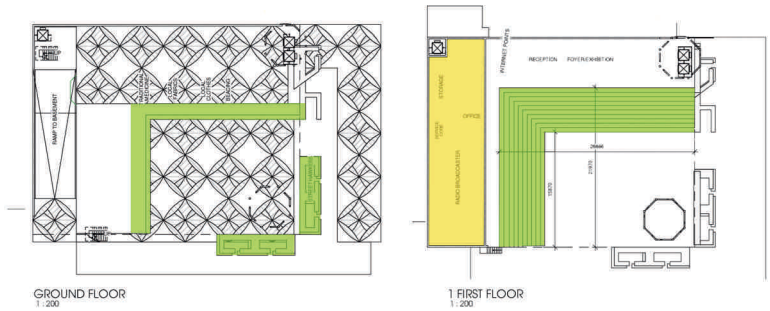
CONSOLIDATING THE CORE

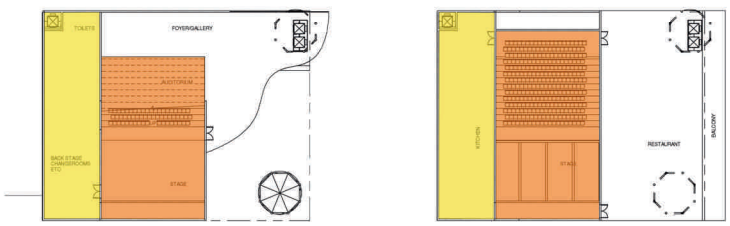






AUDITORIUM INVESTIGATION





STAIRCASE/SEATING

AMPHITHEATRE

CORE FUNCTIONS

DESIGN PHASE C

PLANNING DEVELOPMENT

At this stage the core and service functions were consolidated to western edge of the site. The served and servant spaces became clearly defined. The structural system progressed from a solid core and two reticular columns to a much simpler solution using steel trusses. The circulation and ducts were contained in the servant space and therefore large reticular columns were unnecessary and over complicated. The illumination problem was solved with a large atrium along the length of the northern side of the building. The flow and connections between the public space, auditorium and entrance was finally solved by connecting them on the same level instead of trying to get them to connect over three levels. Once this problem was solved the spaces could be refined and articulated without being completely redesigned.

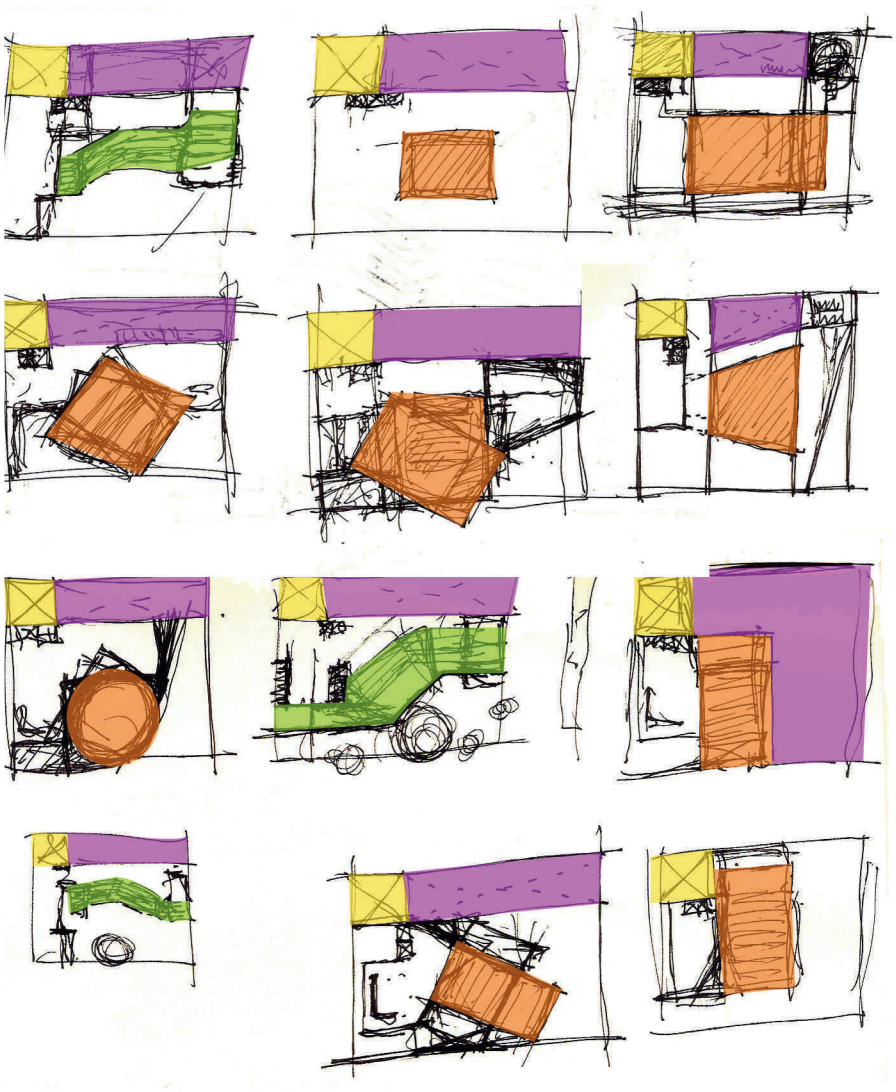
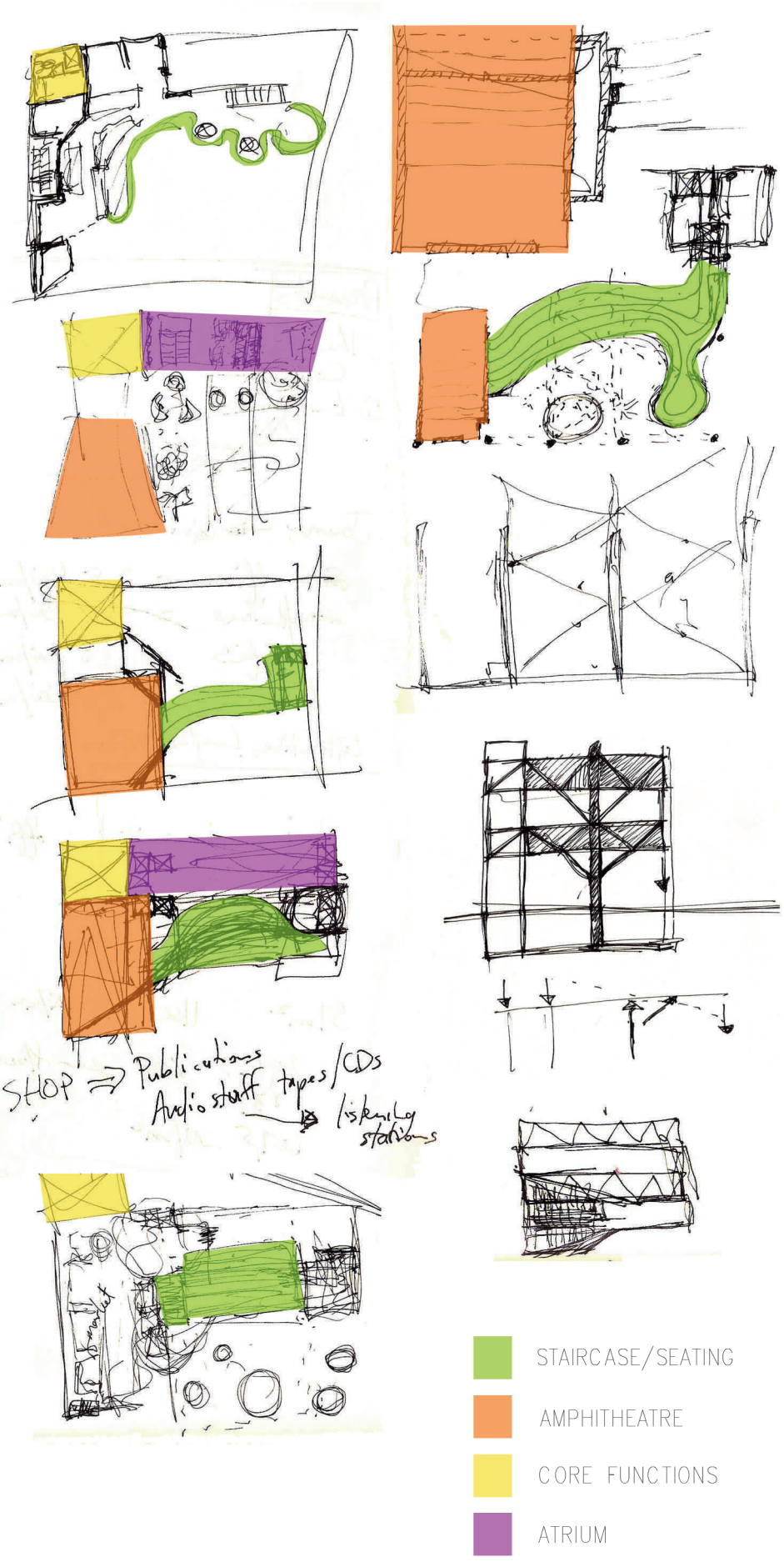


Fig. 59 Design Phase C


SHOP ⇒ Publications
Audio stuff tapes/CDs
listening stations
STAIRCASE/SEATING
AMPHITHEATRE
CORE FUNCTIONS
ATRIUM

6 CLIMAX & RESOLUTION

The amphitheatre space is open to the public at all all times. It is a public space for the city to use. Access flooring was chosen to build the seating. It is a strong yet flexible method. A 900x900mm grid is used for the supports with treads of panels of the same dimensions being fitted in-between. The panels can be custom designed to achieve the required aesthetic. In this case the regular geometry is used to generate a pattern based on African motifs which is then carried through onto the flooring at ground and first level. The treads are fitted with robust steel mesh. This allows light in to the gallery underneath the seating as well as creating a visual connection from within the gallery to the outside. At night the lights inside the gallery will shine through lighting up the seating area.. On the Paul Kruger St side of the building the access flooring is adapted to contain small lockable storage for informal traders to make use of, and the steps here are designed with the intention that they may be used for shelving to display goods for sale.

The floor of the public space is a pattern which continues on the seating and through onto the first level floor, metaphorically taking the city floor through into the building and inversely merging the building with the city.

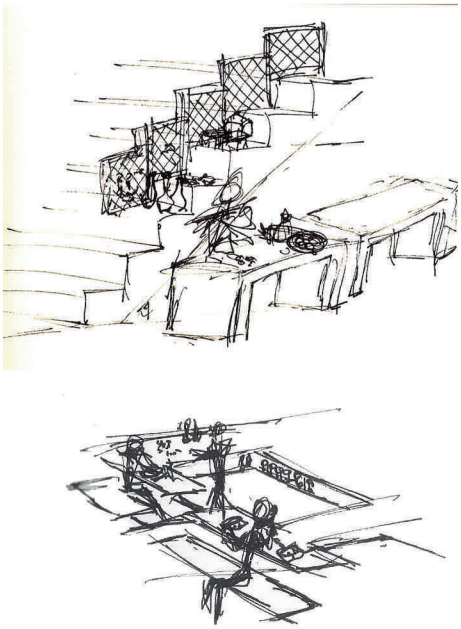


Fig. 60 Concept sketches of informal traders

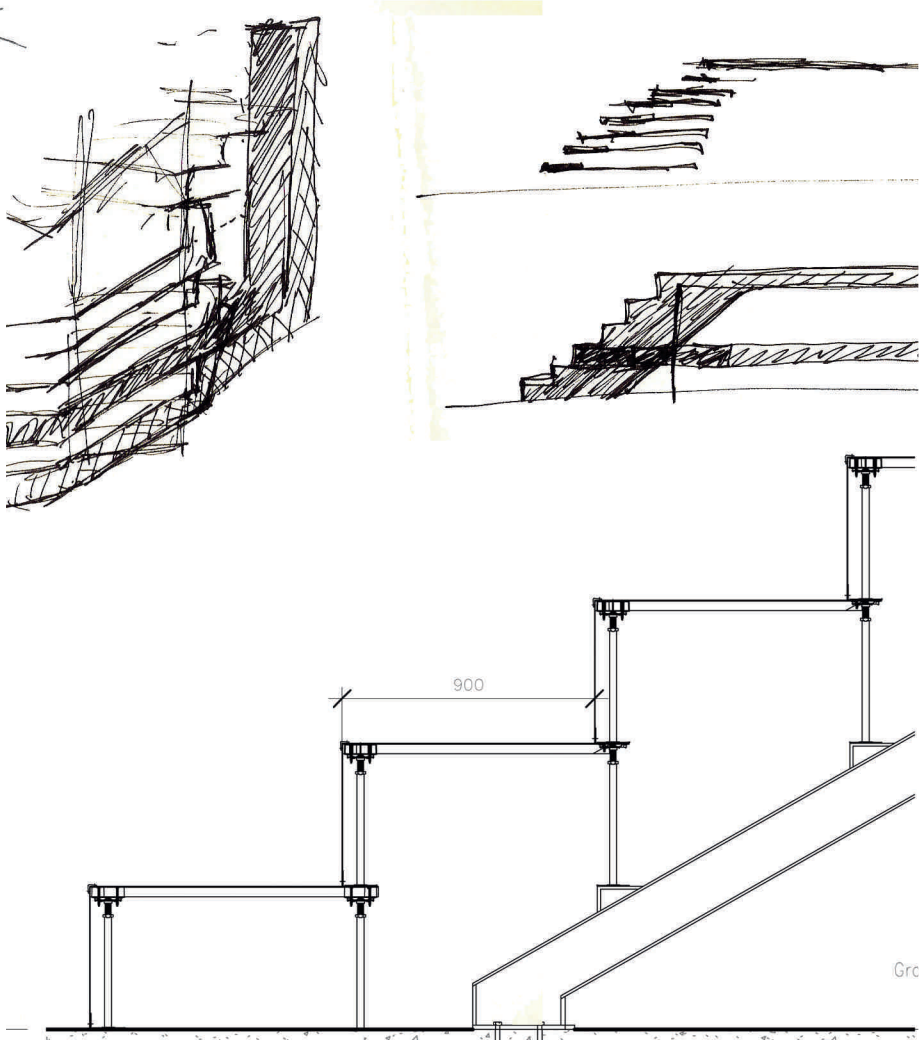


Fig. 61 Sketches and details of seating

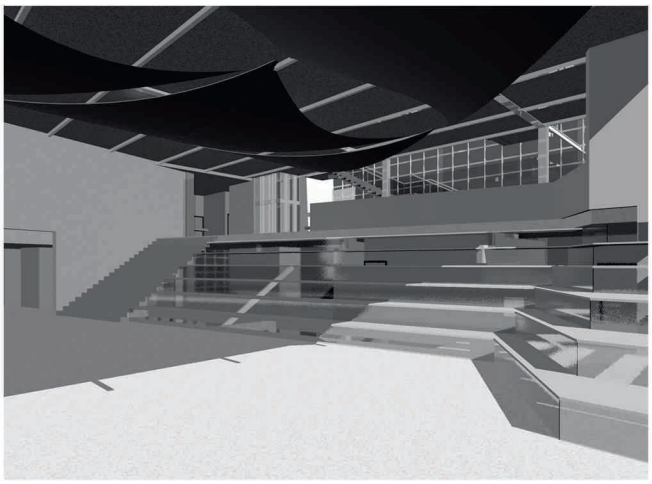


Fig. 62 View of public space from Paul Kruger St

Fig. 63 Elevated view of public space

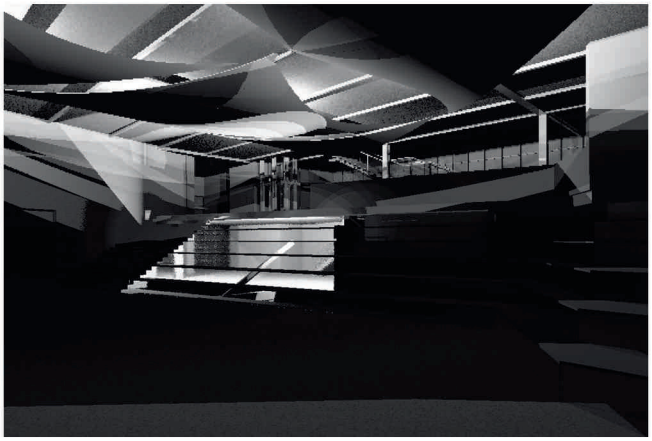


Fig. 64 View of public space at night

Fig. 65 Internal view of auditorium with stage in the middle

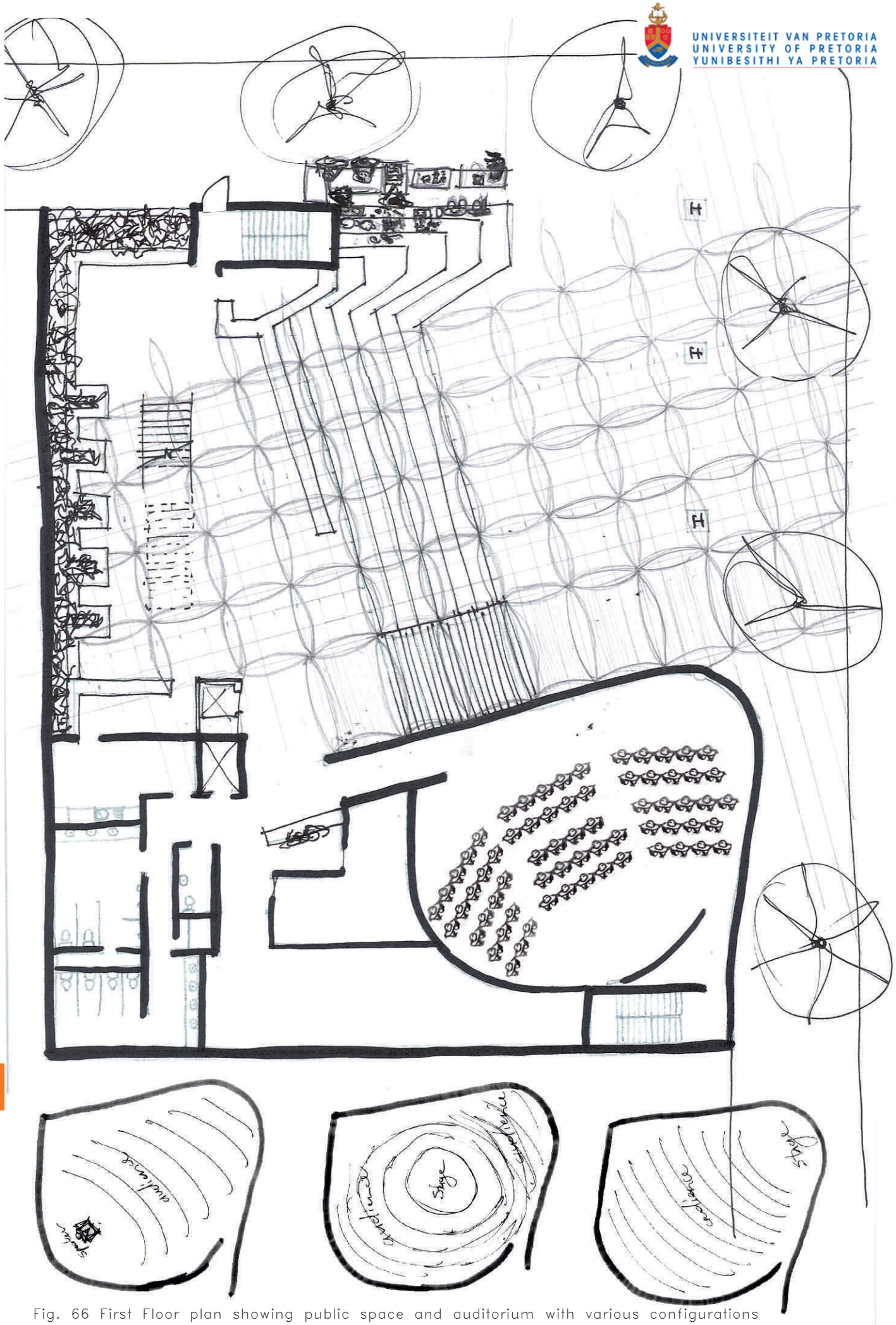


Fig. 66 First Floor plan showing public space and auditorium with various configurations

AUDITORIUM

An auditorium is typically a very prescriptive space but due to the nature of events that would occur in this space (as described previously), it could be designed more flexibly. To make the space less prescriptive, it was decided that the auditorium would not contain fixed seating. This gives the user creative input into how the space will be used. The form of the auditorium came from investigating possible configurations of how a story could be told and was influenced by a hypothetical disposition of a Zulu theatre from Credo Mutwa. Although in reality traditional African storytelling was not limited to certain places and therefore did not find architectural expression [Frescura, 2001:122].

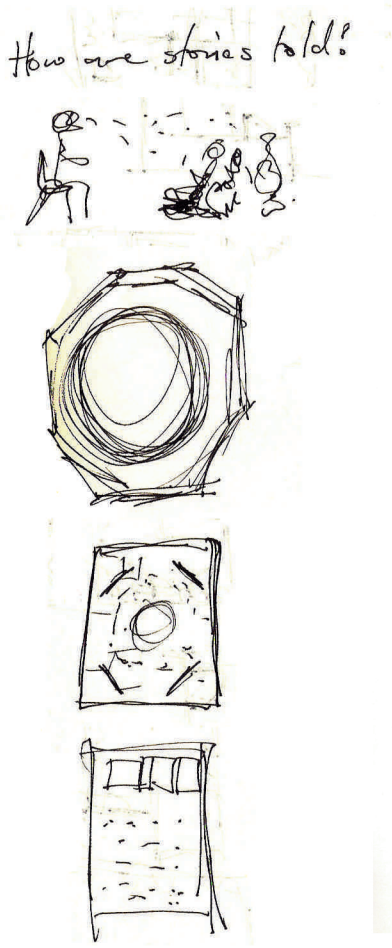


Fig. 67 Investigation of storytelling space configurations

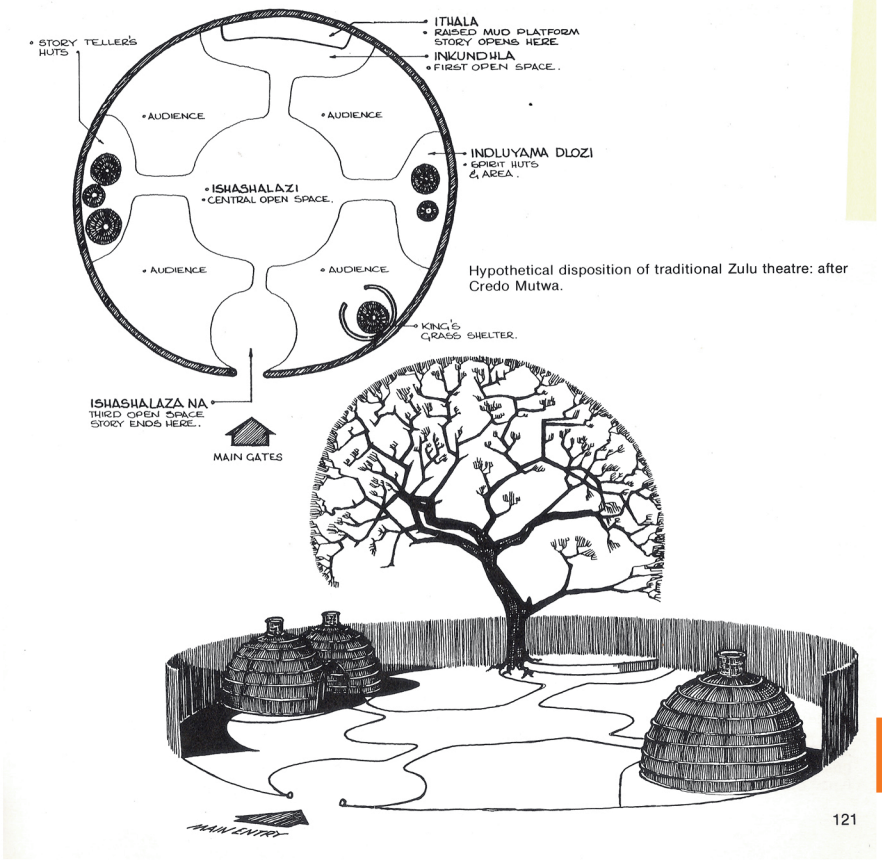


Fig. 68 Hypothetical Zulu Theatre

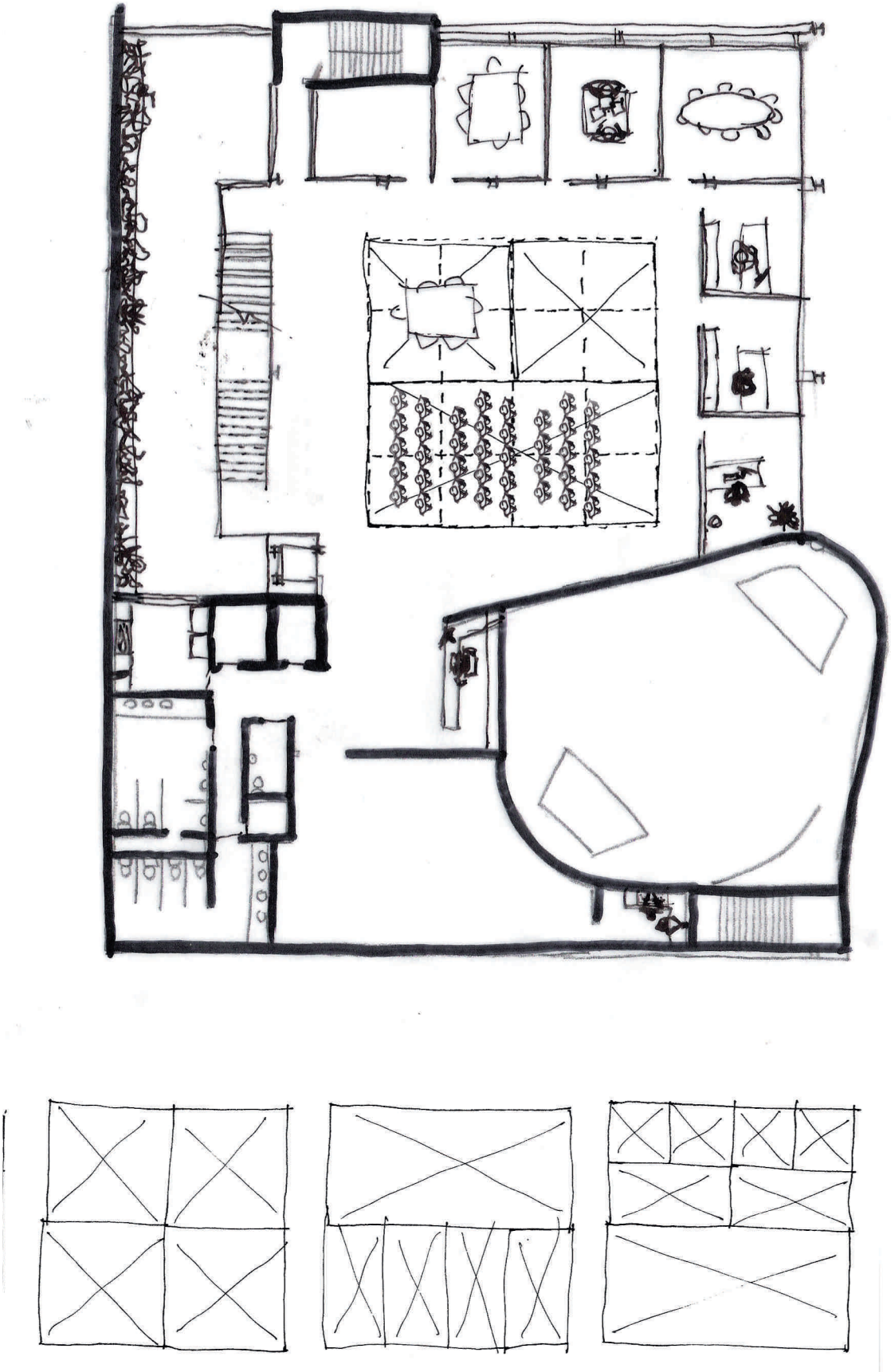
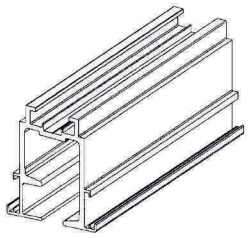
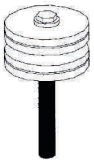


Fig. 69 Second floor plan with various flexible conference room space configurations

The movable partitions used on the second floor will be acoustic panels 3m wide. They will run on overhead tracks laid out in a grid pattern of 3m x 3m. The space can be divided up into rooms with dimensions in modules of 3m as illustrated. An area is demarcated to store panels that are not in use.



Track Type Series 300



Trolley

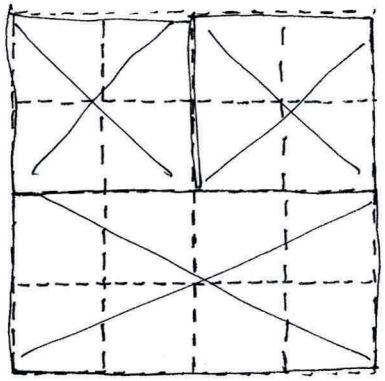
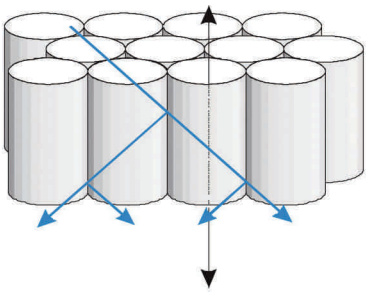


Fig. 70 Detail of overhead tracks for movable partitions

ATRIUM

The atrium's function is mainly to provide light to the back part of the building and encourage some cross ventilation.

Kapilux Glazing panels are used to glaze the atrium. Kapilux offers forward–directed light diffusion which improves in–depth illumination of a room. It provides thermal solar protection and glare protection (Arroyo:2007). The vertical section of the atrium skin contains both clear glass and the translucent kapilux panels so that the city outside is always visible to people in the building.



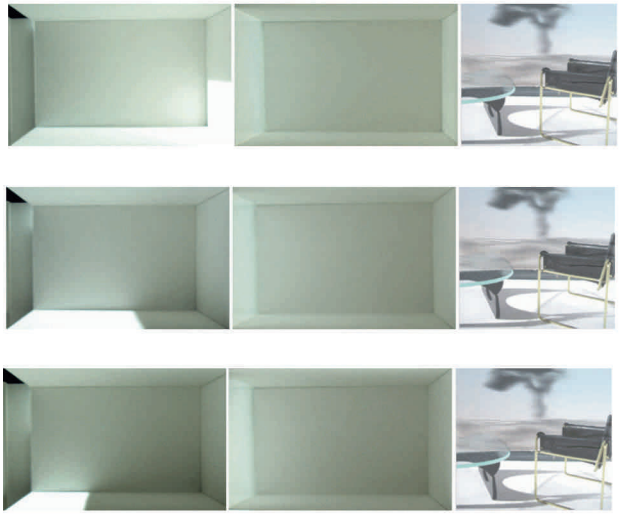


Fig. 71 The illumination difference between normal glazing and kapilux glazing

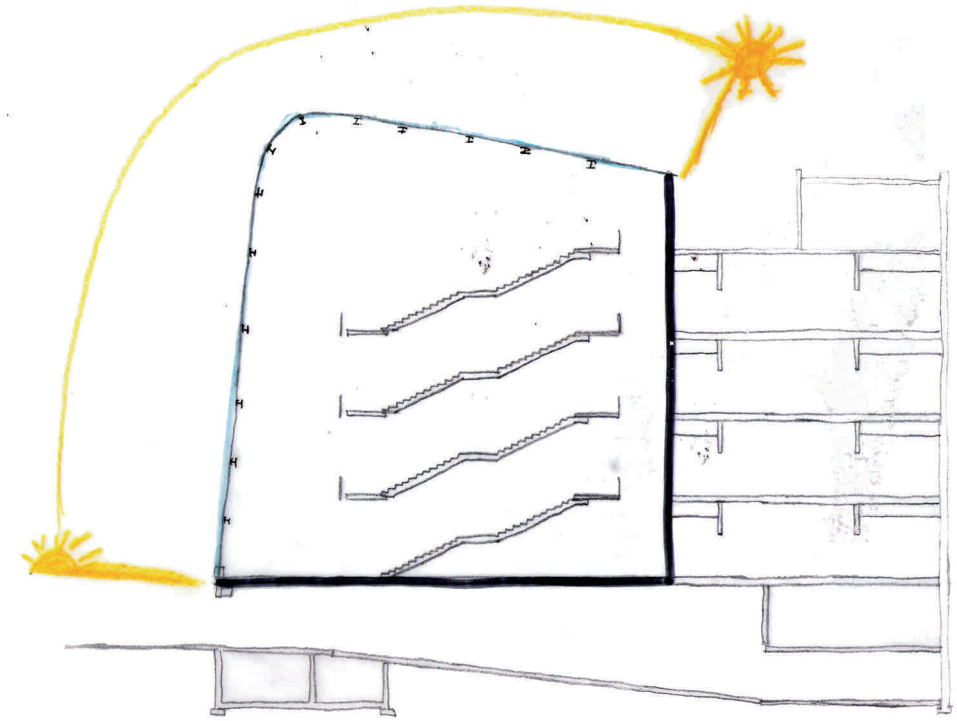


Fig. 72 Section through atrium showing cycle of sunlight

THE VERTICAL GARDEN

The vertical garden runs the full length of the atrium. PVC plates are supported by a framework of steel struts. Two layers of polyamide felt is riveted to the PVC. The felt is continuously supplied with a nutrient rich water solution and the plants embed their roots into the felt (Le Blanc, 2004). Two sources of water are used to irrigate the garden. Rain water is collected from the roof and the grey water from the wash hand basins in the ablutions is filtered and pumped through pipes along the atrium wall.

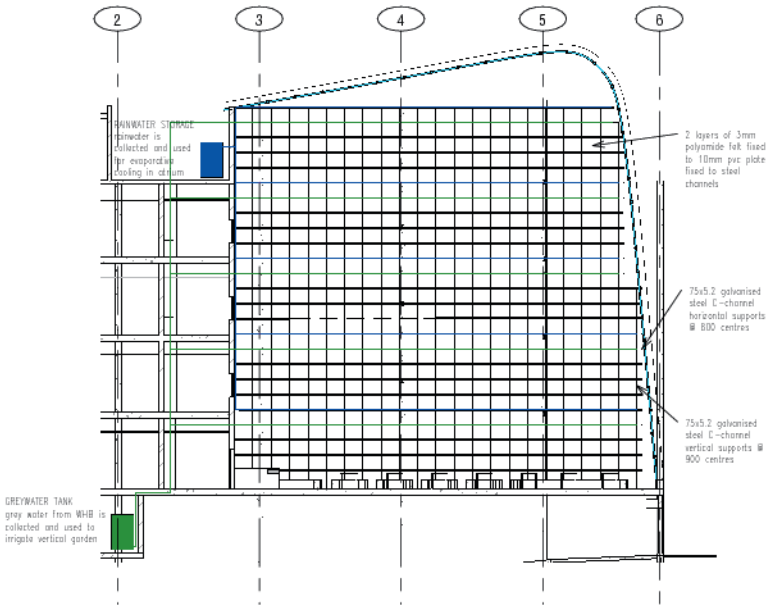


Fig. 73 Detail of irrigation system for vertical garden

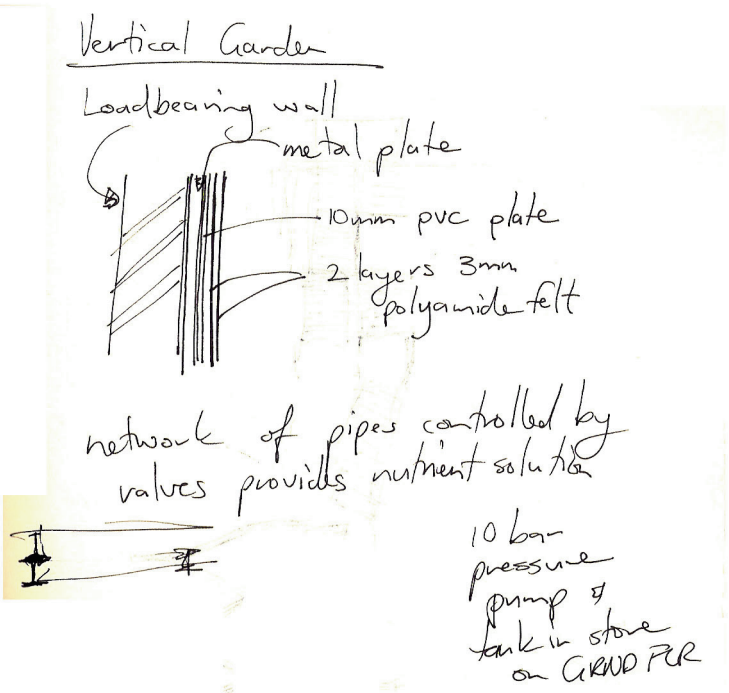


Fig. 74 Detail of vertical garden system

Fig. 75 3D of atrium

Fig. 76 3D of atrium showing vertical garden

THE HVAC SYSTEM

The auditorium and recording studios would be mechanically ventilated using a split unit. A number of ideas were investigated using the atrium as a stack, in an effort to passively ventilate the steel section of the building. In the end, due to the deep spaces and the solid northern and western façades, cross ventilation was not possible. It was decided that only the atrium space could be passively ventilated. Air would be drawn in from the public space and extraction fans at roof level would be used at regular intervals to maintain air flow. The rest of the building would be mechanically ventilated. The plant room is situated on the roof. A hoist is placed on the Struben St side for installing the system and future maintenance.

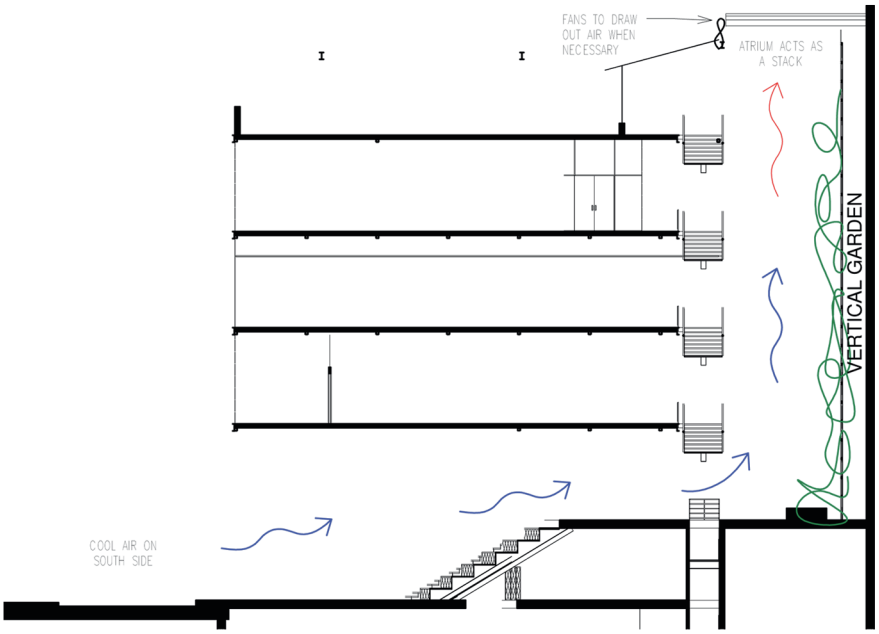


Fig. 81 Passively ventilated atrium

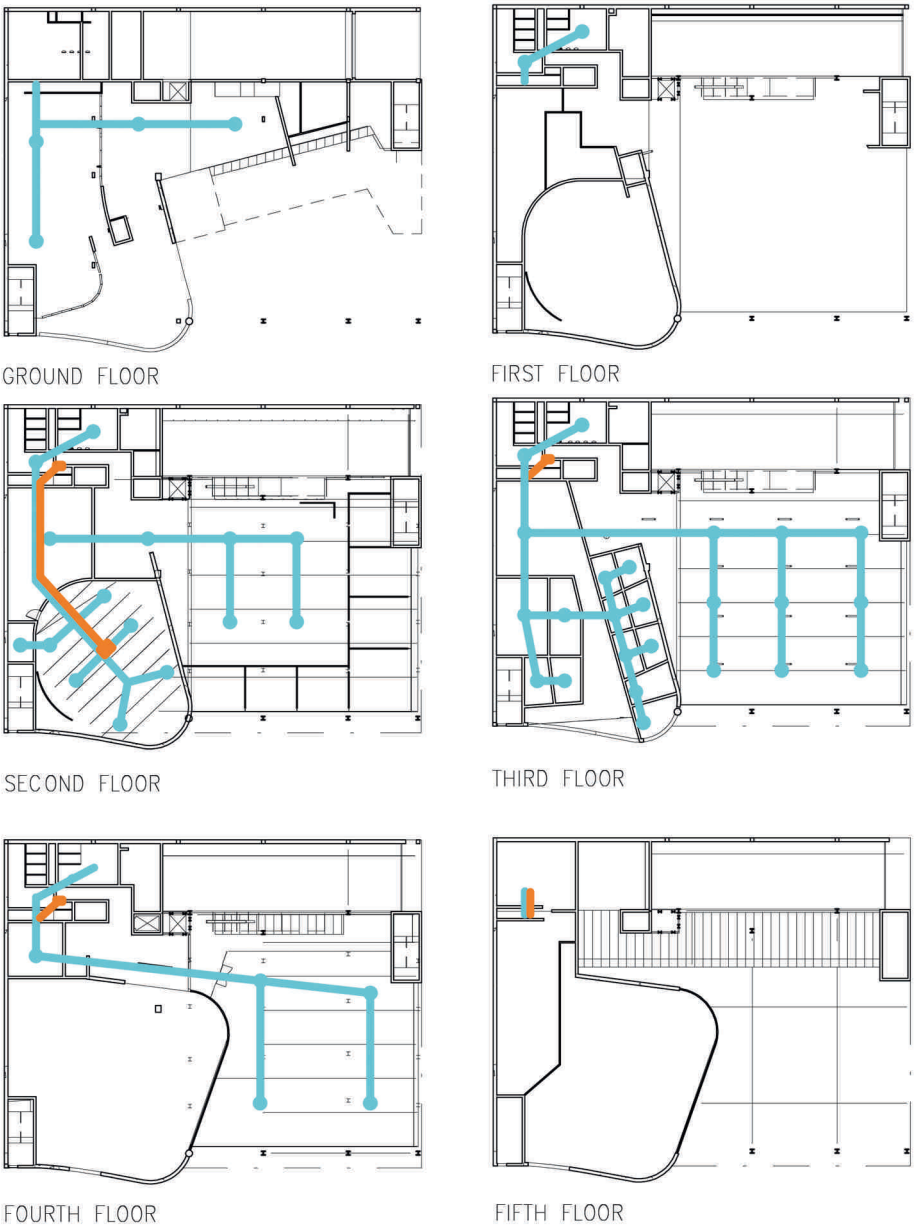


Fig. 82 Distribution of mechanical ventilation

STRUCTURAL ARGUMENT

The building is constructed using both concrete frame and steel frame structures.

The concrete frame section supports the private facilities which tend to have the heavier loads such as the auditorium, the recording studios and the archives. These programmes also all require special acoustic considerations and therefore a more solid form of construction has been chosen. The concrete structure expresses the fixed nature of the programmes in this section. The necessity of having the auditorium free of structure led to 600 deep coffer slabs being used to carry the loads and span the required distance.

The steel frame section contains relatively un-programmed space in that the programmes can be changed as necessary. These spaces therefore need to be open and flexible. The choice of a steel structure allows for large spans without heaviness and appears more temporary.

An H-section 305x305x97 will be a suitable size column to carry the load.

To keep the public stairway/seating free of structure 20,7m needs to be spanned

A deep rolled steel section could be used but the minimum depth of the beam would be 1,035m:

L/d = 15-->20

therefore d= 1035mm --> 1380mm

A truss would be a more efficient way to span this distance. By using a truss 4,08m deep, one floor of the building can fit in-between. A vierendeel girder would then be the most logical choice due to the fact that its members are either vertical or horizontal and therefore movement between them is less restricted than it would be if a rolled steel truss were to be used.

L/d for a vierendeel girder = 4-->12

L=20,7 required d = 4,08

20,7/4,08 = 5,07

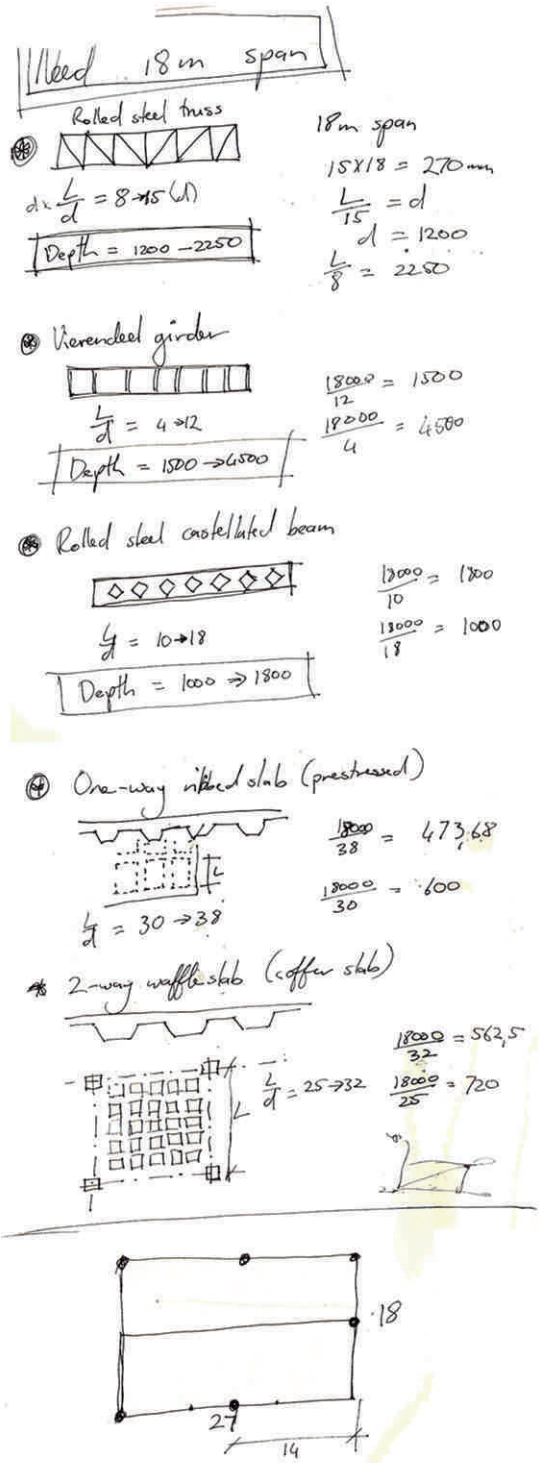


Fig. 83 Structural investigation

5,07 lies on the conservative side of the span depth ratio for a vierendeel girder.

As Louis Kahn did in the Salk Institute, a girder will be placed on every second floor allowing the floors in between to be completely free of structure.

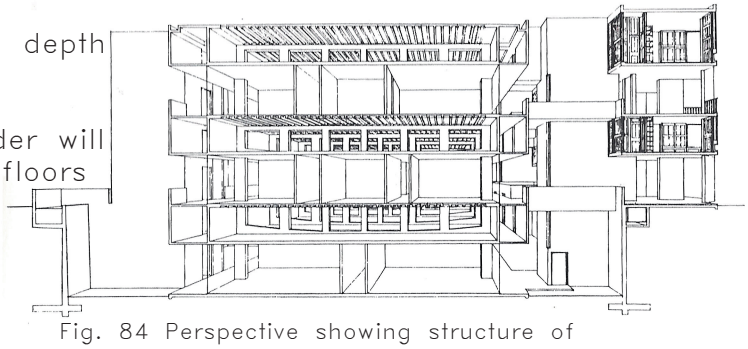


Fig. 84 Perspective showing structure of Salk Institute by Louis Kahn

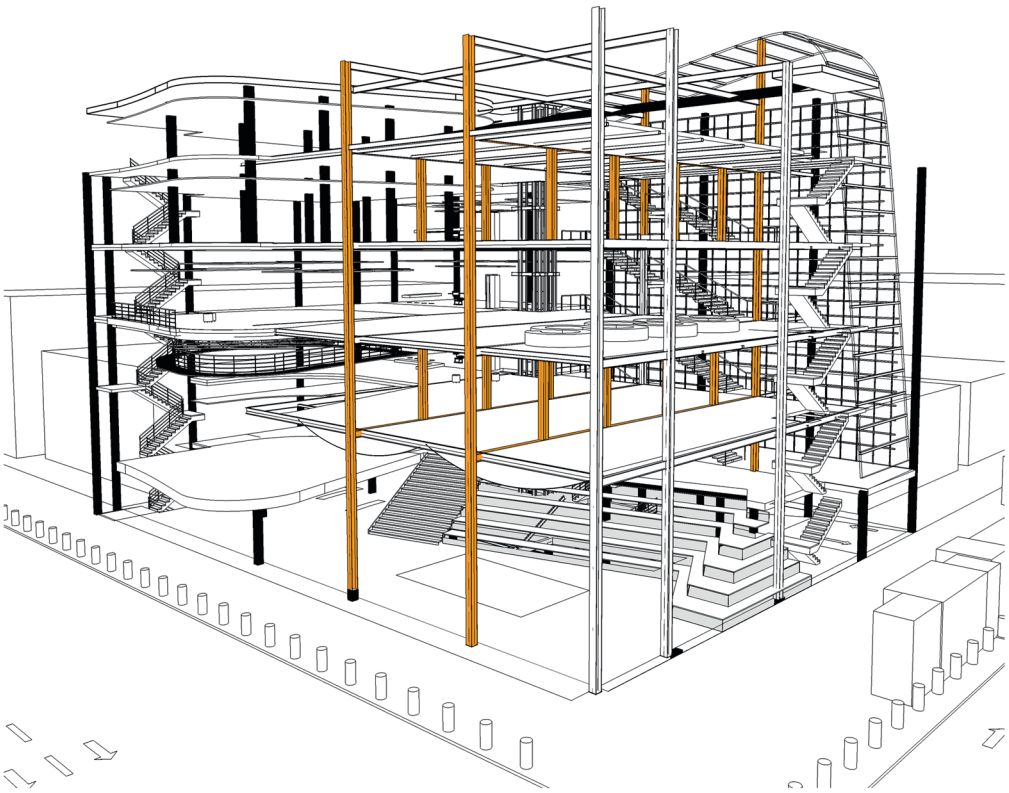


Fig. 85 Structure of Language Centre

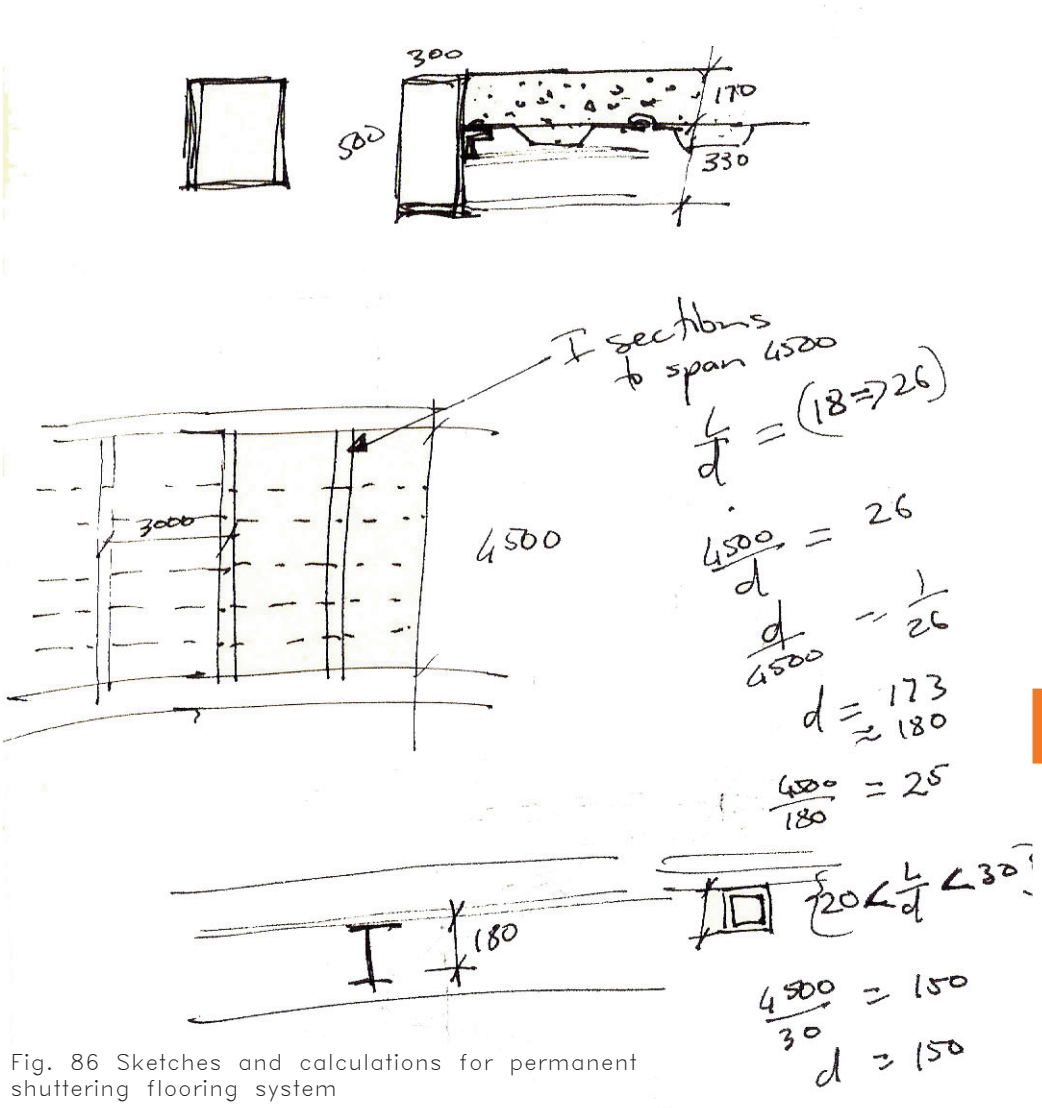


Fig. 86 Sketches and calculations for permanent shuttering flooring system

Bond dek permanent shuttering has been chosen as the floor structure between the steel trusses. The bond dek sheets are supported every 3m by 150x150mm steel square tubing welded to the structural supports. A floor thickness of 170mm will be sufficient to support the load over a 3m span.

brownbuilt

bond-dek

Allowable Load Tables

1,2 Thick

Composite Bond-Dek Slab (1,2 Thick)
Nominal uniformly distributed superimposed load (Ln) in kN/m² for simply supported conditions 25 MPa concrete

Span in metres

Depth of slab (mm)	Nominal dead load of slab (Dn)(kN/m²)	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,25	4,50
140	2,56	10,00	8,75	7,80	6,80	6,00	5,34	4,80				
150	2,79	10,00	9,46	8,50	7,45	6,60	5,89	5,30				
160	3,03	10,00	10,00	9,29	8,16	7,29	6,45	5,79				
170	3,27	10,00	10,00	10,00	8,78	7,88	7,00	6,28				
180	3,50	10,00	10,00	10,00	9,48	8,48	7,54	6,78				
190	3,74	10,00	10,00	10,00	10,00	9,06	8,06	7,26	6,49	5,86		
200	3,97	10,00	10,00	10,00	10,00	10,00	8,76	7,76	6,94	6,26	5,66	5,16
210	4,21	10,00	10,00	10,00	10,00	10,00	9,33	8,24	7,36	6,64	5,99	5,44
220	4,44	10,00	10,00	10,00	10,00	10,00	9,69	8,74	7,81	7,04	6,33	5,74
230	4,68	10,00	10,00	10,00	10,00	10,00	10,00	9,13	8,19	7,43	6,72	6,13
240	4,91	10,00	10,00	10,00	10,00	10,00	10,00	10,00	8,63	7,83	7,07	6,42
250	5,15	10,00	10,00	10,00	10,00	10,00	10,00	10,00	9,09	8,22	7,41	6,72

Indicates maximum modified span/20.

Spans to the right of highlight (including highlighted areas) require propping during construction.

1,2 Thick Bond-Dek decking spans during construction (unpropped)
Allowing for a construction load of 1,5 kN/m² plus wet concrete

Slab depth (mm)	140	150	160	170	180	190	200	210	220	230	240	250
Unpropped span (m)	3,5	3,4	3,4	3,3	3,2	3,1	3,1	3,0	2,9	2,9	2,8	2,8

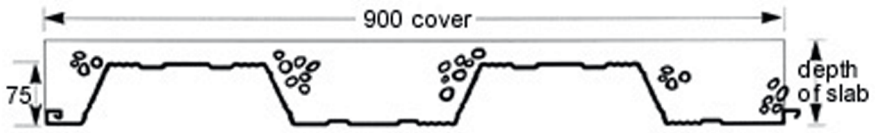


Fig. 87 Details and tables of Bond dek permanent shuttering flooring

BASEMENT

A basement is provided mainly to accommodate staff parking, refuse and storage. The site is relatively small and it is only possible to fit 23 parking bays in the basement. Because this is an urban building which encourages pedestrian movement and interaction with the city it was decided that even if only 23 cars can be accommodated it was better to have them under the building than on the street.
The possibility of having a second basement level was investigated but due to the large space required for the ramp to extend another level deeper compared to the number of additional parking places gained, this option would clearly not be feasible even if the ramp had parking spaces on it.

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DEDICATION

To Edna for her constant love and inspiration
To Markus and Andrea for their support and care
To Bronwen for her prayers and perfectly timed calls
To Aunty Den for picking up so many pieces
To Llewellyn for allowing me to be as I needed to be and being there every step of the way
To my Dad for all his help
To my Mom for everything she taught me